BEFORE THE STATE CORPORATION COMMISSION OF THE STATE OF KANSAS

In	the	Matter	of	the	Investigation	into	the)	
Sus	taina	bility Tra	nsfo	rmati	on Plan of Eve	rgy M	etro,)	Docket No. 21-EKME-088-GIE
Inc	., Eve	ergy Kans	sas C	Centra	l, Inc., and Eve	rgy So	outh,)	
Inc	. (col	lectively,	Eve	ergy).)	

NOTICE OF FILING OF STAFF'S INITIAL COMMENTS

The Staff of the State Corporation Commission of the State of Kansas (Staff and Commission, respectively) hereby submits its Initial Comments for Commission consideration, pursuant to the Commission's procedural order dated April 8, 2021. Staff's Initial Comments are attached hereto as **Attachment A**, and incorporated herein by reference.

Respectfully submitted,

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ATTACHMENT A

BEFORE THE STATE CORPORATION COMMISSION OF THE STATE OF KANSAS

In	the	Matter	of	the	Investigation	ınto	the)	
Sus	staina	bility Tra	nsfc	rmati	on Plan of Ever	rgy M	etro,	`	Docket No. 21-EKME-088-GIE
Inc	., Eve	ergy Kans	sas C	Centra	l, Inc., and Eve	rgy So	outh,)	Docket No. 21-EKWE-088-GIE
Inc	. (col	lectively,	Eve	ergy).)	

REDACTED (PUBLIC) STAFF COMMENTS ON STP AND TOPICS ADDRESSED DURING COMMISSION WORKSHOPS

** Indicates Information Designated as Confidential

The Staff of the State Corporation Commission of the State of Kansas (Staff and Commission, respectively) hereby offers the following comments in response to the Sustainability Transformation Plan (STP) of Evergy Metro, Inc., Evergy Kansas Central, Inc., and Evergy South Inc., (collectively, Evergy).

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I. Background

- 1. On June 18, 2020, the Commission issued an Order Opening General Investigation in the 20-EKME-514-GIE Docket (20-514 Order and 20-514 Docket, respectively). The 20-514 Docket Order granted Staff's petition in that matter seeking investigation into an Agreement that was entered into on February 28, 2020, by the Board of Directors of Evergy, and Elliott Associates, L.P., Elliott International, L.P., and affiliates (collectively Elliott Management or Elliott) (the Agreement) to consider either a Modified Standalone Plan or a Merger Transaction.
- 2. As part of its recommendation, Staff requested Evergy be directed to file a report addressing certain questions outlined by Staff, and allow Staff and all intervening stakeholders an opportunity to respond in writing. Staff recommended that Evergy submit its report no later than two weeks after Evergy's Board decision as to whether to pursue a Modified Standalone Plan or a Merger Transaction. Staff further noted its intent to petition the Commission to open another investigative docket in the event Evergy elected to pursue a Modified Standalone Plan.

¹ 20-514 Docket, Staff Report and Recommendation (20-514 Staff Report), p. 2, filed June 11, 2020.

- 3. As part of the Order, the Commission adopted Staff's recommendation with respect to certain reporting requirements for Evergy and proposed timelines for the docket. Consistent with the Commission's directive, Evergy filed its report on August 13, 2020, indicating its Board's decision to pursue a Modified Standalone Plan as opposed to a Merger Transaction. In addition to answering the questions posited by Staff, the report contained the planned Modified Standalone Plan, which Evergy identifies as the Sustainability Transformation Plan (STP).
- 4. On August 19, 2020, Staff filed its Petition for Order Initiating Investigation in the instant docket to provide Staff, stakeholders, and Evergy an avenue to collaborate and evaluate the STP. Staff's Petition included its Report and Recommendation (Report), which explained that the 20-514 Docket was investigatory in nature, requiring no affirmative action by the Commission. Staff's Report also noted that in its Report and Recommendation in the 20-514 Docket, it advised that it would seek to open a new docket to evaluate any Standalone Plan recommended by Evergy's Board of Directors and its potential impact on the core elements of the merger agreement approved by the Commission in the 18-KCPE-095-MER Docket (18-095 Docket).
- 5. Consistent with Staff's recommendation in the 20-514 Docket, Staff included in its Report in the instant docket a recommendation that the Commission open the separate general investigation into the STP to evaluate the potential impact on the core elements of the merger agreement approved in the 18-095 Docket and to gain an understanding of how the STP will effect service and rate trajectories. At the time of the Report, Staff envisioned this investigation would not only allow the Commission and stakeholders the opportunity to understand the details of the STP as proposed, but also provide an opportunity to address any proposed modifications to the STP as stakeholders analyze the STP and reach conclusions on its impact in Kansas.

6. On August 27, 2020, the Commission issued an Order Opening General Investigation in this matter, which adopted Staff's Report in its entirety. The Order directed the parties to collaborate and recommend a procedural schedule to govern the investigation and Staff was directed to file the proposed schedule and format of the investigation after consultation with parties. On November 6, 2020, Staff filed its Motion to Approve Procedural Schedule. In its motion, Staff noted that the recommended procedure would:

Provide stakeholders and avenue for an open dialogue with Evergy about its vision of the STP as currently contemplated. Ideally, this discussion will also help inform Evergy's decisions going forward so that as it makes its decision with respect to the implementation of the STP it does so with an understanding of the various concerns of the stakeholders.²

- 7. The proposed schedule contemplated a series of three public workshops attended by the Commissioners. Each of the workshops would cover a different focus area of the STP, and parties would be permitted to issue subject-specific discovery regarding the presentations made by Evergy at the workshops.
- 8. On November 19, 2020, the Commission issued an Order Establishing Procedural Schedule (Procedural Order), which established the following workshops:
 - Dec. 3, 2020—Workshop with Evergy Presentation on grid modernization investments in the STP and related benefits;
 - Dec. 21, 2020— Workshop with Evergy Presentation on operational efficiencies (Non Fuel O&M as well as Fuel and Purchased Power cost savings) included in the STP;
 - Jan. 20, 2021 Workshop with Evergy Presentation on enhanced customer experience resulting from the STP.³

² Staff Motion ¶4.

³ Procedural Order ¶ 7.

9. Following the workshops, the schedule provided for a series of Comments by Staff and intervenors, followed by Cross-Answering Comments, Evergy's Responsive Comments, and finally another workshop where Evergy could presented the update of its STP after incorporating feedback and results from earlier workshops and intervenor comments. In accordance with the procedure adopted by the Commission, Staff presents the following Comments on Evergy's STP and the three Evergy Workshops/Presentations.

II. Staff Comments on STP and Workshops

Executive Summary and Organization

- 10. According to the report filed by Evergy on August 13, 2020, in the 20-514 Docket, Evergy's STP was developed with five overarching themes in mind:
 - 1. Continue to Deliver on Evergy's Prior Merger Commitments;
 - 2. Improve Regional Rate Competitiveness and Enhance Customer Experience;
 - 3. Enhance Key Stakeholder Collaboration;
 - 4. Maintain A Strong Credit Profile; and
 - 5. Maximize Long-Term Shareholder Value.⁴
- 11. Overall, Staff views the STP as a balanced and reasonable plan that has the potential to improve Evergy's regional rate competiveness and service reliability. This is not an easy feat, as these two objectives are often times in competition with one another. However, Staff also suggests that there are several refinements that should be made to the STP if it is likely to be a plan that all (or a majority) of stakeholders can support. With that context as the backdrop, Staff recommends the following:

⁴ See 20-514 Docket, Evergy's Notice of Filing Report to the Commission (STP Report), Appendix 1, p. 1 of 54, August 13, 2020.

- Evergy should strive to reduce if not eliminate the disparity in projected rate impacts of the STP to Evergy Kansas Central and Evergy Kansas Metro. If this disparity is not addressed, the ability of Evergy to make meaningful progress towards regionally competitive rates in Kansas will be significantly jeopardized.
- e Evergy and stakeholders should collaborate and propose aggressive but achievable reliability metrics for SAIDI, SAIFI, CAIDI and CEMI⁵ to report to the Commission and to judge the success of the STP Grid Modernization investments.⁶ There may be other objectives of Evergy's Grid Modernization investment (outside of standard reliability metrics) that need to be considered as well. Staff suggests the parties should develop these objectives and performance metrics using the framework set out in the United States Department of Energy (DOE) Next Generation Distribution System Platform Initiative (DSPx) Modern Distribution Grid series.⁷ This would allow ratepayers to appreciate and value the investments that Evergy is making on their behalf, and it would provide tangible proof that the investments Evergy is making are producing progress towards the reliability side of the regulatory policy goal reflected in K.S.A. 66-1287.
- Evergy and other stakeholders should report the progress of the initiative to develop reliability and performance metrics on a quarterly basis with the Commission in a compliance filing. In the event that the parties are unable to make progress towards the establishment of performance metrics and reliability objectives for the Grid Modernization

⁵ SAIDI (System Average Interruption Duration Index), SAIFI (System Average Interruption Frequency Index), CAIDI (Customer Average Interruption Duration Index), CEMI (Customers Experiencing Multiple Interruptions).

⁶ These performance-metrics could also be used to design a limited PBR plan that seeks to reward and/or penalize Evergy's reliability performance as additional Grid Modernization investments are made throughout the course of the STP and beyond.

⁷ See U.S. Department of Energy, Modern Distribution Grid Project, https://gridarchitecture.pnnl.gov/modern-grid-distribution-project.aspx/.

- program, the Commission could order the establishment of a formal proceeding to gather evidence and set minimum reliability/performance standards for Evergy.
- Annually, Evergy should provide stakeholders with a transparent analysis that demonstrates the planned Grid Modernization projects are the most efficient way of meeting the defined customer reliability metrics. This could be a least-cost best-fit analysis, a formal cost benefit analysis, or potentially some combination of the two. Staff suggests this analysis be informed by the frameworks presented in the recent U.S. DOE whitepaper titled: "Benefit-Cost Analysis for Utility-Facing Grid Modernization Investments: Trends, Challenges, and Considerations."
- Evergy should consider phasing in its FERC-jurisdictional Transmission investment over a longer time frame than five years, such as seven to ten years, so as to reduce the rate impact of these investments on Evergy Kansas Central ratepayers. Alternatively, Evergy should consider shifting this investment towards additional Distribution projects, which Staff contends will have a greater impact on customer reliability than Transmission investments. Additionally, because distribution investments would be KCC-jurisdictional, the ROE earned on this investment would be 100 basis points lower than the FERC-authorized ROE of 10.3%. This will allow Evergy to make more progress towards regionally competitive rates and reliable electric service as reflected in K.S.A 66-1287.
- Once a quarter, Evergy should report its full list of Board and senior management level Key Performance Indicators (KPIs) to the Commission in a compliance docket. This report should be supplemented annually with all of the granular execution level KPI data tracked and reported internally within Evergy. This will allow the Commission to monitor

⁸ See https://eta-publications.lbl.gov/sites/default/files/gmlc bca final report 20210202.pdf February 2021.

Evergy's performance on the different areas of the STP, and intervene in the event that it becomes concerned about Evergy's ability to provide efficient and sufficient service and just and reasonable rates.

- 12. The remainder of Staff's comments are organized in the following fashion:
 - III. Overview of the STP
 - IV. Key components of the STP
 - a. Capital Expenditures
 - b. Operating Cost Savings
 - c. Potential Decarbonization and Additional Solar Generation
 - d. Progress Towards Regionally Competitive Rates
 - e. Stakeholder Process
 - V. Comparison to Prior Evergy Financial Plans
 - a. Capital Expenditures and Operating Cost Savings in STP Compared to March 2020 "Base Plan"
 - b. Capital Expenditures and Operating Cost Savings in STP Compared to 18-095 Docket "Merger Plan"
 - c. Evergy Expected Outcomes from STP
 - i. Outcomes for Customers
 - ii. Outcomes for Investors
 - iii. Outcome for Other Stakeholders
 - VI. Staff's Evaluation of the STP
 - a. Consistency with K.S.A. 66-1287 and Goals of Regionally Competitive Rates and Reliable Electric Service
 - b. Compliance with 18-095 Docket Merger Conditions

- c. Staff's Feedback/Recommended Revisions to the STP
- d. Recommended Reporting Mechanisms

VII. Conclusions and Summary of Recommendations

III. Overview of Evergy's STP

- 13. Evergy's STP is a five-year strategic and operating plan developed by Evergy during the summer of 2020, and announced on August 5, 2020. The STP covers the period of 2020-2024 and contains the following major elements:
 - An additional \$1.4 billion in capital expenditures companywide during the 2020-2024 time period, bringing Evergy's total capital expenditures budget to \$8.9 billion from the March 2020 estimate of \$7.5 billion.⁹ These incremental investments are expected to be in the areas of Distribution and Transmission Grid Resiliency, Critical Asset Hardening, Distribution Automation and Technology, and additional Renewable Generation.
 - Operating and Maintenance (O&M) expense reductions of \$330 million from 2018 levels
 (25%) or \$210 million from 2019 levels (18%). This is approximately double the level of
 net O&M savings Evergy projected from the merger of Kansas City Power and Light and
 Westar Energy, Inc. ¹⁰ and **

**12

⁹ While Evergy has subsequently revised this number to \$9.2 billion to cover the time period of 2021-2025, that information will be evaluated in Docket No. 19-KCPE-096-CPL. Because the STP Report and other documents filed in this Docket utilize the \$8.9 billion figure, Staff's comments focus on that number as well.

¹⁰ See Docket No. 18-KCPE-095-MER, Direct Testimony of Stephen P. Busser, Page 15, Table 2 Savings Summary by Type and Year. Evergy projected \$159.8 million in net annual merger savings by the year 2022.

¹¹ The Base Plan was the nomenclature given to Evergy's pre-STP financial plans (from March 2020) in the Confidential Financial Model.

¹² See Confidential Financial Workpapers provided in response to KEPCo Data Request No. 1-04 (Confidential Financial Model) attached to these Comments as Appendix 3.

- Fuel and Purchased Power reductions of \$144 million (11.4%) from 2019 levels or
 - **13
- Evergy-wide retail rate impacts from the plan are expected to remain below the level of inflation, which Evergy estimates will improve regional rate competitiveness. Evergy estimates that compound annual growth rate (CAGR) of retail rates on a dollar per kWh basis across all of Evergy's service territories is expected to be 1.6% over the five year period from 2020-2024. When split between States, Evergy predicts a CAGR of 1.5% for Kansas retail rates and a CAGR of 1.9% for Missouri retail rates. Split further by individual utility, Evergy predicts a CAGR of -.5% for Evergy Kansas Metro, 2.2% for Evergy Kansas Central, 1.8% for Evergy Missouri Metro and 1.9% for Evergy Missouri West.
- A robust stakeholder process, which Evergy claims, will "inform the final plan balancing the pace of decarbonization against other desired outcomes, including rate impacts that reflected associated changes in investments and total operating expenses." Evergy further describes this stakeholder process as follows: "As noted above, one of the central elements of the STP is to engage with stakeholders around our plan and discuss the linkage between our operating and capital plans and retail rate impacts. This insures that changes to retail rates reflect the value that ratepayers and other stakeholders place on investments that Evergy is making on their behalf." ¹⁸

¹³ See Confidential Financial Model, line 317.

¹⁴ See 20-514 Docket, STP Report, p. 12 of 54, August 13, 2020.

 ¹⁵ See 21-088 Docket, Evergy Operational Efficiencies Presentation Supplemental Information filed on December 22, 2020, (initially designated as confidential, later released as public, in part).
 ¹⁶ Id

¹⁷ See 20-514 Docket, STP Report, p. 4 of 54, August 13, 2020.

¹⁸ See 20-514 Docket, Evergy's Notice of Filing Report to the Commission, Appendix II, Evergy Response to Commission Questions, p. 9-10 of 13, August 13, 2020.

Staff will elaborate on each of these areas in the following section of these comments.

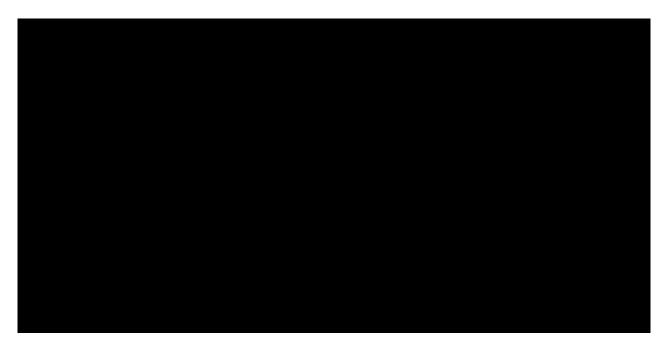
IV. Key Components of the STP

a. Capital Expenditures

- 14. Over the years 2020-2024, Evergy projects the following company-wide capital expenditures. Amounts in parenthesis indicate the incremental capital spend as a result of the STP¹⁹:
 - 1. Distribution Grid Resiliency--\$3.02 billion (\$500 million incremental)
 - 2. Transmission Grid Resiliency--\$1.87 billion (\$500 million incremental)
 - 3. Critical Asset Hardening & Contingency--\$240 million (\$100 million incremental)
 - 4. Distribution Automation & Technology--\$330 million (\$300 million incremental)
 - 5. Generation Renewables--\$675 million (\$200 million incremental)
 - 6. Other T&D Facilities—\$466 million
 - 7. Other Generation Facilities—\$1.581 billion
 - 8. General Facilities and Other—\$723 million
- 15. The specific details of how this investment is planned to be invested by year between 2020-2024, and how the investment is planned to be split between the states of Kansas and Missouri, remains confidential. Evergy provided the following confidential table with the supplemental workshop information filed on December 22, 2020:

¹⁹ Distribution of capital expenditures between categories, and incremental amounts sourced from Slide 13 of Evergy's September 2020 Investor Update, as well as Figure 2 (p. 16 of STP Report) and Table 3 (p. 28 of STP Report).

Table is Confidential



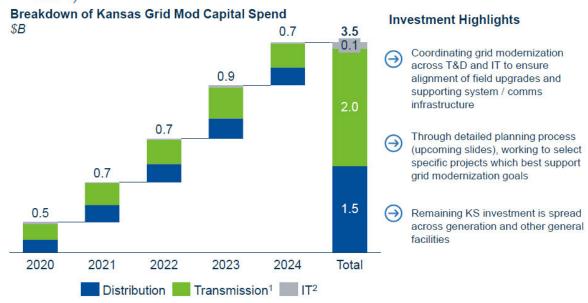
16. Of the \$1.4 billion in planned incremental capital expenditures resulting from the STP, \$303 million is planned for Kansas jurisdictional investments, \$438 million is Missouri jurisdictional, and \$612 million is FERC jurisdictional.²⁰ The distribution of this incremental investment is depicted in the following graphic:

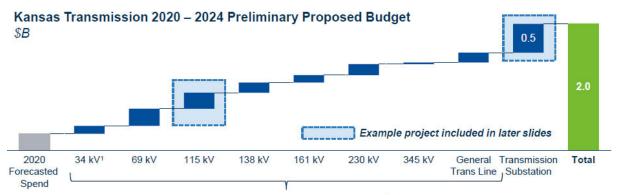
²⁰ Note, while this \$612 million in incremental investment is FERC jurisdictional, it is all planned in Evergy Kansas Central's service territory, which means approximately 83% of the revenue requirements associated with these investments will be recovered from Evergy Kansas Central's retail ratepayers. *See* Retail Load Ratio Share calculation support in Docket No. 21-EKCE-308-TAR.

\$ in millions ~\$8,905 \$612 ~\$7,552 \$438 \$1,863 \$303 \$1,251 KCC \$3,338 \$2,900 FERC \$3,704 \$3,401 KCC FERC STP Prior MPSC Projection Projection

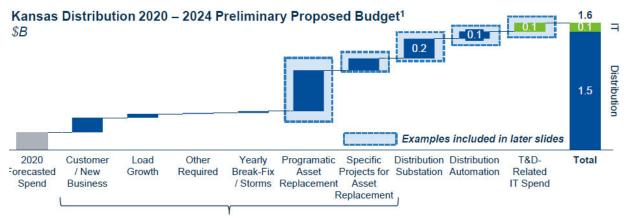
17. Out of the \$5.6 billion in capital expenditures planned for Kansas, \$3.5 billion of that investment is dedicated towards Grid Modernization capital. At the December 3, 2020, Grid Modernization workshop, Evergy presented the following graphics, which provided some detail about the expected categories of Transmission and Distribution Grid Modernization investment:

\$5.6B in Capital Expenditures Planned in Kansas, with about \$3.5B of that in transmission, distribution and IT to support Grid Mod (2020-2024)





Transmission Line Projects (2021-2024 Total)2: \$1.3B



Distribution Line Projects (2021-2024 Total): \$0.9B

18. In addition to the Grid Modernization capital spend described above, Evergy also plans to invest \$675 million in 700 MW of new solar generation assets. The financial modeling provided in support of the STP indicates that this investment will be split **

**21 While the STP includes estimated capital expenditures related to additional solar generation, Evergy is clear to point out in the STP Report that these generation

additional solar generation, Evergy is clear to point out in the STP Report that these generation additions are simply starting points for the complete analysis, which will take place in the Integrated Resource Planning (IRP) process when it is filed later this year. On page 25 of the STP Report, Evergy states the following:

As discussed in Section 8, engagement with stakeholders is an integral component of Evergy's STP and longer-term IRP. The STP serves as a starting point for engaging stakeholders, particularly as it relates to investments in grid modernization and resource portfolio decarbonization transition actions that are planned for 2020-2024. The IRP analysis and stakeholder engagement processes will determine the final plans, balancing the pace of decarbonization with other desired outcomes, including rate impacts that reflect associated changes in investments as well as reduced FPPC and NFOM expenses.

In Section 8 of the STP Report, Evergy continues:

The resource transition plan assumptions reflected in the STP (*i.e.*, specific resource investments and retirements) are starting points for the IRP exercise. We believe that these assumptions are valid and reliable for purposes of beginning our analysis and are directionally consistent with where we expect that the IRP stakeholder engagement process will take us. However, we are not constrained by these assumptions as we want our final plan to ultimately reflect the collective perspectives of Evergy and stakeholders.

b. Operating Cost Savings

19. Evergy projects a \$330 million (25%) reduction in annual non-fuel operations and maintenance expense (NFOM) by 2024, from 2018 levels. This equates to a reduction of \$210

²¹ See Confidential Financial Model, line 901.

million (18%) in NFOM from 2019 levels. This level of savings is approximately double the level of net NFOM savings Evergy projected from the merger of Kansas City Power and Light and Westar Energy, Inc. during the 18-095 Docket. It is also approximately **

**22 In addition, Evergy projects fuel and purchased power cost (FPPC) reductions of \$144 million (11.4%) from 2019 levels or **

20. The reduction in NFOM expenses is shown in the following graphic from the STP Report:

2020E

2024E

Figure 4: Targeted O&M Reductions, 2018 - 202416

21. Evergy summarizes the source of these cost savings as follows on page 10 of the STP Report:

2019A

Savings in generation will result from optimizing staffing, lowering operations costs by extending maintenance intervals consistent with lower coal generation output, more flexible operations, improved predictive maintenance and condition monitoring through the Remote Operations, Monitoring and Diagnostics center. These initiatives will maintain coal generation availability, reduce unscheduled

2018A

²² See Confidential Financial Model, line 444.

²³ See Confidential Financial Model, line 317.

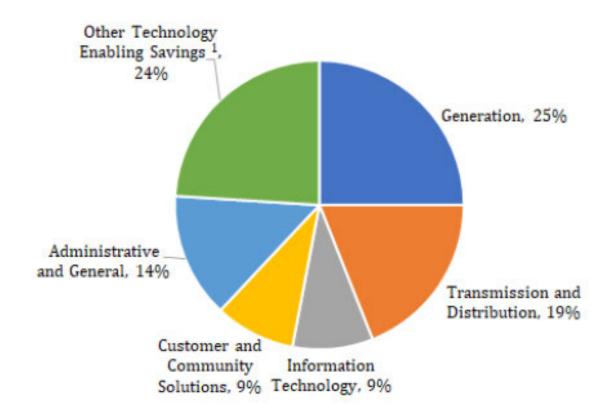
outages and facilitate shorter power plant run cycles. The STP also continues the transition away from coal and toward greater use of renewables. These renewables investments will be combined with fossil generation retirements and more flexible fossil plant operations to reduce FPPC and capture the benefits of lower cost renewable energy technologies. The determination of specific investments and retirements and the associated timing of these actions will consider the economics of various supply portfolios and will be evaluated in collaboration with our stakeholders as part of the IRP process.

Transmission and distribution investments in grid resiliency and asset hardening will reduce the cost impact of storm damage and shift spending toward more cost-effective planned capital investments. Investments in information systems and advanced operational capabilities will allow Evergy to increase worker productivity and manage infrastructure more efficiently in a number of ways, including the optimization of equipment inspection and maintenance.

Savings in information technology and customer and community solutions include a comprehensive digital transformation and the completion of numerous streamlining initiatives. The comprehensive customer digital transformation will significantly improve the customer experience by creating a true omni-channel customer engagement platform which increases customer self-service and lowers NFOM. The digital transformation will also automate the five core customer touchpoints including: account opening or account transfer, bill payment, bill inquiry, outage management, and usage management, allowing customers to interact with the Company in a more personalized and customized way.

22. This graphic from page four of Evergy's Response to Commission Questions in the 20-514 Docket provides a generalized breakdown of the functional areas Evergy expects these savings to originate:

Areas of NFOM Savings by Function Area

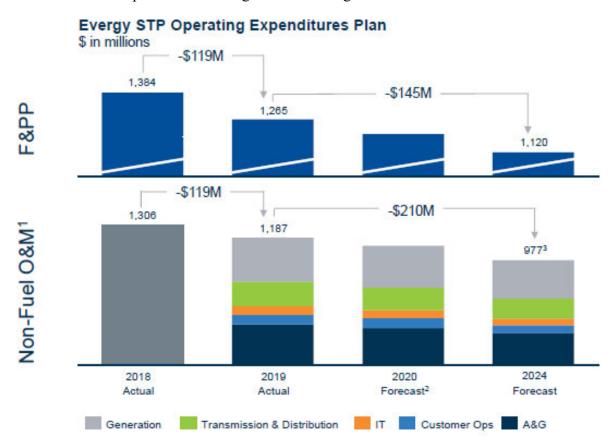


- 1. Actual savings will occur across the functional areas.
- 23. The Confidential Financial Model estimates that the O&M savings will be distributed across Evergy's different jurisdictions in the following fashion: **

²⁴ See Confidential Financial Model, lines 777-783.



24. This graphic from Evergy's September 2020 Investor Update shows an approximate distribution of the expected cost savings between categories:



25. The level of savings contemplated through this time period is inclusive of the merger savings contemplated in the 18-095 Docket. While Evergy has substantially outperformed the original estimates of cost savings from the merger, the cost savings associated with the STP provide still greater levels of cost savings. The following confidential table from the Financial

Model provides a reconciliation between the operating cost savings associated with the merger, Evergy's pre STP Base Plan, and cost savings attributable specifically to the STP. **



26. At the December 21, 2020, Operational Efficiencies workshop, Evergy presented summary level information about where and how it expected to generate operating savings. Slide 15 of the presentation identified the following categories of fuel and purchased power cost savings, with a few examples of how these would be achieved:

²⁵ See Confidential Financial Model, lines 435-445.

Outage Optimization • <u>Ex:</u> Move coal fleet to 3-year outage schedule; improve schedule adherence and reduce outage duration for nuclear	\$10 - \$20M
Coal Contract Renegotiations • Ex: Renegotiate freight and commodity contracts	\$40 - \$65M
Monitoring and Diagnostics • Ex: Use advanced pattern recognition models to predict performance of vibration equipment based on online sensor data	\$15 - \$25M
Flexible Operations • <u>Ex:</u> Increase economic dispatch range of coal units and Wolf Creek to increase flexibility and capture additional margin	\$2 - \$8M

27. These categories and the dollar amounts attributed to them would appear to support FPPC savings of between \$67 and \$118 million from 2019 levels. Additionally, slides 16-20 presented the categories of NFOM savings that Evergy expected to achieve, with some examples of how that would be done:

Nuclear Future State Staffing Ex: Achieve target org chart at Wolf Creek	\$10 - \$20M
Fossil & Renewable Organization Efficiency • <u>Ex:</u> Increase employee productivity with supervisor coaching	\$15 - \$25M
Preventive Maintenance Optimization • Ex: Reduce replacement frequency for certain parts	\$10 - \$20M
Outage Optimization • <u>Ex:</u> Adhere to target nuclear outage schedules; move coal fleet to 3-year outage schedule	\$5 - \$10M

Vegetation Management Optimization Ex: Leverage digital platform to improve workflow between Evergy & tree trimming contractors	\$12 - \$16M
Field Force Optimization • Ex: Synchronize and optimize direct-buried cable replacement policy	\$12 - \$16M
Contractor Optimization • Ex: Extend lifecycle of transmission poles by applying treatments to prevent decay	\$8 - \$12M
T&D Operations Planning Optimization • Ex: Reduce streetlight maintenance costs	\$5 - \$9M
Chartered Efficiencies & Commitments • Ex: Negotiating strategic enterprise agreements related to software costs	\$10 - \$20M
IT Software • <u>Ex:</u> Rationalizing set of IT security tools by leveraging enterprise solutions	\$2 - \$5M
IT Organization Optimization • Ex: Reducing contractor and FTE positions through Voluntary Exit Packages (VEPs)	\$2 - \$5M
IT Services • Ex: Increasing offshoring and negotiating for lower IT service contract rates	\$2 - \$5M

Customer Operations • Ex: Deploying digital self-service capability to reduce call volume leading to lower O&M costs	\$2 - \$5M
Metering Operations • Ex: Leveraging smart meters to reduce service order costs and field labor spend	\$1 - \$4M
Contact Center Ops Optimization • Ex: Optimize contact center hours of operation to customer	\$1 - \$3M
Cost Allocation Manual Standardization • Ex: Consolidating billing services and credit management depts.	\$1 - \$3M
One-time Costs Normalization • Ex: Identify and reduce one-time costs such as bad debt expense and short-term incentives	\$15M
Organization Optimization • <u>Ex:</u> Optimize organization structure across support functions incl. Finance, HR, Supply Chain Compliance & Regulatory	\$2 - \$5M
Procurement Optimization • <u>Ex:</u> Reduce spend across categories through vendor rationalization and demand management	\$2 - \$5M

These categories and the dollar amounts attributed to them would appear to support NFOM savings of between \$117 and \$203 million from 2019 levels.

28. During this workshop Evergy reported that it had identified approximately 230 chartered items for execution for additional O&M savings. In its confidential response to KEPCo Data Request No. 3-15, Evergy provided a list of **

** The savings charters in

this data request response fall into the following categories, based on Evergy's descriptions:



c. Potential Decarbonization and Solar Generation

29. Evergy's STP calls for the potential retirement of 500 megawatts (MW) of coal-fired generation in 2024, as well as the development of 700 MW of company-owned solar production,

with another 200 MW of solar purchased power agreements (PPA). Page 23-25 of Evergy's STP Report states the following regarding this potential:

The STP includes the potential retirement of approximately 500 MW (of coal generation in 2024 and the development of 700 MW and purchases of an additional 200 MW of renewable energy through 2024. These actions are estimated to require approximately \$675 million of investment, which, when combined with other costsaving initiatives, will contribute to FPPC in 2024 being approximately \$145 million lower than 2019 costs. These FPPC savings will flow directly to customers through our fuel adjustment clauses in Kansas and Missouri.

These resource portfolio actions continue our transition to become a clean energy provider which began over fifteen years ago. Since 2005, Evergy has retired more than 2,400 MW of fossil generation and added or contracted for over 4,600 MW of renewables, making Kansas #2 in the nation for wind generation as a percentage of total generation. Our current renewable resources are predominately Evergy-owned or contracted for wind resources. Nearly half the power to homes and businesses we serve already comes from carbon-free sources. Our most recent 2020 annual IRP update already included a planned addition of 500 MW of solar across the Evergy utilities, which is reflected in the STP. The process to develop the 2021 Triennial IRP will reflect a continued transition from coal to utility-scale wind, solar, and solar+storage resources. Expansion of our energy efficiency programs, and other demand-side resources will also contribute to meeting our sustainable energy goals, while lowering long-term energy costs.

Evergy is currently targeting an 80% reduction in CO2 emissions by 2050 relative to 2005 levels. However, there are opportunities related to decarbonization and renewables deployment that are not currently included in our five-year STP which could support additional investment and offer the potential to reduce CO2 emissions by up to 85% by 2030. The pace of decarbonization will ultimately be defined in collaboration with our stakeholders during the IRP process and as part of our engagement with a broader group of stakeholders with respect to the STP.

As noted above, our STP resource plan includes a mix of owned and contracted renewable resources. We understand the importance of engaging with regulators and other stakeholders regarding the value of maintaining a mix of resources, and the particular attributes of owned-renewables that provide a degree of control over the assets as well as a hedge against price volatility that may be associated with power purchase agreements.

As discussed in Section 8, engagement with stakeholders is an integral component of Evergy's STP and longer-term IRP. The STP serves as a starting point for engaging stakeholders, particularly as it relates to investments in grid modernization and resource portfolio decarbonization transition actions that are planned for 2020-2024. The IRP analysis and stakeholder engagement processes will determine the final plans, balancing the pace of decarbonization with other desired outcomes, including rate impacts that reflect associated changes in investments as well as reduced FPPC and NFOM expenses.

d. Progress Towards Regionally Competitive Rates

30. Evergy predicts that the STP will continue the progress it has made recently towards regionally competitive rates. The expected drivers of this progress are the cost savings which were discussed above, and a conservative rate base growth profile when compared to Evergy's regional peers. Pages 9-12 of Evergy's STP Report describes this as follows:

The reductions in NFOM and FPPC will keep rate increases low and are expected to improve the regional position of our customers' rates. The STP will build on the progress we have made in 2018 and 2019 during which we saw our residential and industrial rates in Kansas decrease while the regional average increased and our commercial rates in Kansas decrease more rapidly than the regional average. [cite omitted] From 2017 to 2019, our residential and industrial rates decreased 6.4% and 1.4%, respectively, while the regional average increased by 2.8% and 1.3% respectively. For the same period, our commercial rates decreased by 3.1% while the regional average decreased at a slower pace of 2.0%. The STP savings are expected to continue these rate trends in the future.

To support the goal of improved operations and a sustained lower cost structure both before and after 2024, the STP calls for additional capital investment as compared to our March 2020 capital plan. We have identified an additional \$1.4 billion of capital investment through 2024, resulting in \$8.9 billion in projected capital expenditures from 2020 through 2024. However, even at these levels of investment, Evergy's capex-to-depreciation-and amortization (Capex/D&A) ratio will remain below the median (Capex/D&A) ratio of its Midwest peers and by 2022 Evergy's (Capex/D&A) ratio is forecasted to be 1.8x versus the peer group median of 2.1x.[cite omitted] Collectively these investments enable and support a lower cost structure that optimizes the workforce across each function consistent with our merger commitments and our "People First" culture.

Our disciplined approach to cost reductions, operating efficiencies and customer-focused investments envisioned under the STP is expected to maintain this momentum and will translate into revenue requirements and rates for customers that are lower than they otherwise would be. The STP, thus, is expected to increase affordability and improve our regional rate position. Under the STP, the overall rate compound annual growth rate ("CAGR") from 2020 to 2024 on a dollar per kWh basis is expected to be 1.6% across all of our utility customers, which is below the expected rate of inflation and below rate caps established in Missouri through legislation enacted in 2018 [cite omitted] through actions developed to provide benefits that will be realized both during the five years of the STP and well-beyond this planning period, consistent with the useful life of the investments.

31. When split between States, Evergy predicts a 2020-2024 CAGR of 1.5% for Kansas retail rates and a CAGR of 1.9% for Missouri retail rates.²⁶ Split further by individual utility, Evergy predicts a CAGR of -.5% for Evergy Kansas Metro, 2.2% for Evergy Kansas Central, 1.8% for Evergy Missouri Metro and 1.9% for Evergy Missouri West.²⁷ The following graphics provide a breakdown between operating jurisdiction of the projected changes to each component of Evergy's retail rates during the time period covered by the STP:

⁻

²⁶ See Evergy Operational Efficiencies Presentation Supplemental Information filed on December 22, 2020, (initially designated as confidential, later released as public, in part).

²⁷ Id.

STP Retail Average Rate	Projected	Projected	20-24	20-24
c/kWh	2020	2024	change	CAGR
BASE	6.61	6.69	80.0	0.3%
RECA	2.16	2.04	(0.12)	-1.5%
TDC	1.33	2.04	0.71	11.3%
SPE	2	0.11	0.11	n/a
PTS	0.10	0.24	0.15	26.1%
DSIM	0.02	0.02	(0.00)	-3.0%
Average Retail Rate per KWh	10.22	11.14	0.93	2.2%

Kansas Metro							
STP Retail Average Rate c/kWh	Projected 2020	Projected 2024	20-24 change	20-24 CAGR			
BASE	8.99	9.26	0.27	0.7%			
ECA	1.76	1.20	(0.56)	-9.1%			
TDC	0.63	0.62	(0.01)	-0.5%			
PTS	0.11	0.20	0.09	16.7%			
Average Retail Rate per KWh	11.49	11.29	(0.21)	-0.5%			

Missouri Metro								
STP Retail Average Rate	Projected	Projected	20-24	20-24				
c/kWh	2020	2024	change	CAGR				
BASE	10.35	11.58	1.24	2.9%				
FAC	(0.18)	(0.51)	(0.33)	n/a				
PTS	(0.12)	(0.16)	(0.04)	n/a				
DSIM	0.25	0.16	(0.09)	-11.0%				
Average Retail Rate per KWh	10.30	11.07	0.77	1.8%				

Missouri West				
STP Retail Average Rate	Projected	Projected	20-24	20-24
c/kWh	2020	2024	change	CAGR
BASE	8.86	9.54	0.67	1.8%
RAC	(0.23)	(0.09)	0.14	n/a
DSIM	0.26	0.16	(0.09)	-10.5%
RESRAM	0.09	0.09	(0.00)	-0.2%
Average Retail Rate per KWh	8.98	9.70	0.72	1.9%

32. In the Confidential Financial Model, Evergy provides more details surrounding its projected rate levels during the five years covered under the STP, and as projected under its previous financial plan, the Base Plan. For example, in the following table, Evergy predicts its total retail rate revenue and all-in retail rate per kWh, under both its Base Plan financial forecast and the STP, by jurisdictional utility: **



** Here is a similar but alternative view of retail rate revenue for Evergy Kansas Central and Evergy Metro:

²⁸ See Confidential Financial Model, lines 289-308.

Table is Confidential29



e. Stakeholder Process

34. On pages 4-5 of STP Report, Evergy describes the stakeholder process component of the STP as follows:

We believe that stakeholder engagement leads to better long-term planning. Engagement with stakeholders is an integral component of Evergy's STP and long-term IRP. The stakeholder process will inform the final plan balancing the pace of decarbonization against other desired outcomes, including rate impacts that reflect associated changes in investments and total operating expenses. Our approach to collaboration will consist of ongoing engagement with a broad group of stakeholders around the STP and the long-term IRP and will include customers, government officials, environmental groups, consumer advocates and community organizations. The IRP portion of the stakeholder engagement process is more

²⁹ See Confidential Financial Model, lines 1129, 1441.

formal and usually includes stakeholders that have experience with resource planning activities. The STP encompasses not only resource planning, but cost efficiency and infrastructure investment across the entirety of Evergy. Therefore, the STP stakeholder process will include a broader group of interested parties as well as broader community input and customer research.

In Section 8 of the STP Report, Evergy continues discussing the importance of stakeholder engagement in the STP.

A cornerstone of the STP is our commitment to engage with key stakeholders. The triennial IRP processes provide an opportunity to engage with stakeholders that have an interest, experience, and expertise in resource planning issues. As described below, we are increasing the level of IRP stakeholder engagement to incorporate the STP. This is timely and appropriate as we discuss the pace and form of the path to our resource portfolio decarbonization and as we prepare our first IRP in Kansas. We will engage with a broader group of stakeholders to discuss other aspects of the STP, including grid modernization, transmission investments, and efforts to improve the regional competitiveness of our retail rates. Enhanced stakeholder collaboration will contribute to better outcomes for all stakeholders as we invest in and build upon our constructive relationships with regulators, communities, customers and other stakeholders. It is our aspiration that the enhanced engagement with diverse interests will enable the development of a plan that achieves our shared goals of affordable, clean, reliable electricity that delivers value to our customers and communities.

Successful stakeholder engagement means that the final version of the STP will likely involve changes from the current plan because it will be informed by and reflect suggestions made by stakeholders. And it means that the final version of the STP should have a broad array of community, business, customer and political support. While we may not be able to reach 100 percent consensus on every aspect of the STP, we are striving for a level of engagement from stakeholders that allows us to move forward with a plan that reflects a balancing of interests that all stakeholders can endorse.

35. Evergy summarizes the objectives of its Stakeholder Collaboration in the following graphic from page 47 of the STP Report.

Broad Engagement	Invite participation from diverse stakeholders
Encourage Transparency	Share plan objectives, methodology, analysis and the planning process with stakeholders to build understanding and enable informed participation
Expand and Enrich Analysis	Encourage input from a variety of viewpoints to evaluate in alternative analyses (e.g., the level and timing future investments)
Discuss and Balance Trade-Offs	Understand and balance trade-offs among different desirable outcomes (reliability, value/affordability, safety, flexibility, environmental stewardship)
Work Together to Implement	Pursue legislation/regulatory enablers, maintain open dialogue

V. Comparison of STP to Prior Evergy Financial Plans

a. Capital Expenditures and Operating Cost Savings in STP Compared to March 2020 "Base Plan"

36. Evergy's STP was developed between March 2020 and July 2020, officially approved by the Evergy Board of Directors on July 23, 2020. When approved, the STP took the place of the existing financial plan that Evergy was operating under, which Evergy refers to as the Base Plan. The following table from the Confidential Financial Model shows the projected yearly capital expenditures for Evergy for the years 2020-2024 under both the Base Plan and the STP: **Table is Confidential**

37. Evergy also provides this schedule to reconcile between the expected NFOM savings	
under the Base Plan and the NFOM savings expected under the STP. ³⁰ **Table is Confidential**	
38. Additionally, Evergy provides this view of projected Kansas capital expenditures for	
Evergy Kansas Central and Every Kansas Metro under both the Base Plan and the STP: ³¹ **Table	
is Confidential**	

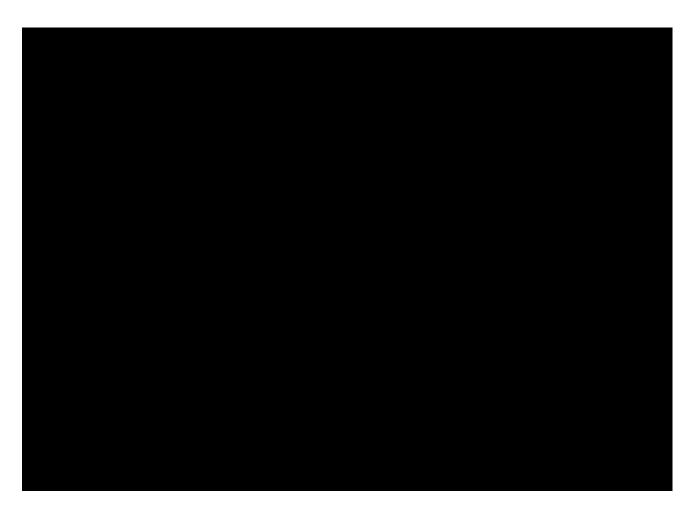
³⁰ See Confidential Financial Model, lines 358-365. ³¹ See Confidential Financial Model, lines 180-201.



b. Capital Expenditures and Operating Cost Savings in STP Compared to 18-095 Docket "Merger Plan"

39. In addition to evaluating how the STP differs from Evergy's previously announced financial plans, Staff examined how the STP differs from Evergy's financial plans evaluated during the 18-095 Docket merger proceedings. Evergy's Confidential Financial Model contains comparisons to these pre and post-merger financial plans. The following table shows the progression from Evergy's pre-merger capital expenditures budget to the STP budget: **Table is Confidential**

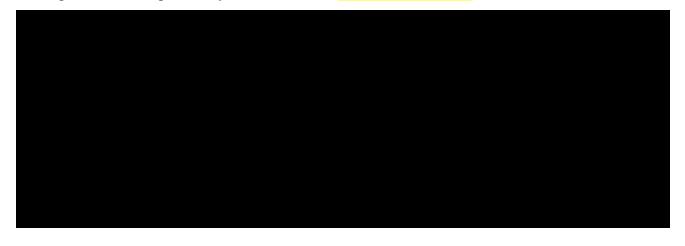
³² See Confidential Financial Model, lines 880-906.



This same information is presented in this graphic provided by Evergy as part of the supplemental information from the Commission workshops:



40. The following confidential table from the Financial Model provides a reconciliation between the operating cost savings associated with the merger, Evergy's Base Plan, and cost savings attributable specifically to the STP.³³ **Table is Confidential**



³³ See Confidential Financial Model, lines 434-445.

VI. Evergy Expected Outcomes from STP

41. In this Section Staff will provide an overview of the outcomes that Evergy expects to materialize as a result of the STP. Expected outcomes are presented and discussed for customers, investors, and other Kansas stakeholders.

a. Outcomes for Customers

42. Evergy describes three areas of benefits for customers arising from the STP. Those are: 1) Maintains Affordability; 2) Improves Customer Experience; and 3) Improves Reliability and Resiliency. The following graphic summarizes Evergy's expectations for the STP in these areas:

CUSTOMERS

✓ Maintains Affordability

- Capital investments targeted to enable long-term and sustainable cost savings of an expected ~25% non-fuel O&M reduction by 2024
- Significant fuel and purchase power savings of ~\$145M from 2019 through 2024

✓ Improves Customer Experience

- Enables automated outage communications
- Expands digital communications, transactions and customer self-service options
- Modernizes rate structures to offer additional rate options tailored to different types of residential customers

Improves Reliability & Resiliency

 Capital investments in replacing aged infrastructure, grid automation, data handling / analytics capabilities and communications infrastructure to improve grid reliability, reduce restoration times and increase overall grid resiliency Page eight of Evergy's STP Report summarizes these benefits as follows:

With the STP, Evergy will produce cost and reliability benefits to customers and accelerate our transition to a lower cost and more sustainable generation profile. We will optimize capital allocation to create a smarter, more flexible, and more efficient grid that will better allow the integration of distributed energy resources at the grid edge, and power the electrification of transportation, heating and cooling, and industrial processes. These outcomes will create benefits for all stakeholders, increase long-term value and help spur economic activity and create new jobs in our communities.

i. Affordability

43. As discussed in detail earlier in these comments, Evergy projects that the STP will improve its regional rate competitiveness by lowering its operating cost structure and making capital investments that will allow its rate base to grow slower than the majority of its regional peers. Evergy projects that the combination of these two elements of the STP will produce retail rate changes from 2020-2024 that are below the expected level of inflation when measured company wide, with the following CAGR retail rate changes by jurisdiction: -.5% for Evergy Kansas Metro, 2.2% for Evergy Kansas Central, 1.8% for Evergy Missouri Metro and 1.9% for Evergy Missouri West.

ii. Improves Customer Experience

44. On January 20, 2021, at the Customer Experience Workshop, Evergy provided a presentation that described the benefits that it contemplates under the STP.³⁴ Evergy's STP Report summarizes the customer experience benefits of the STP as follows:

³⁴ See Enhanced Customer Experience presentation by Chuck Caisley, January 20, 2021. https://estar kcc.ks.gov/estar/ViewFile.aspx/S202101131554028234.pdf?Id=85da4efb-d0d4-4152-aa88-645d541de72e.

The digital information and advanced operational capabilities supported by our distribution automation and advanced technology investments described in Section 4 will help our customers use less electricity and will improve the customer's experience by enabling automated outage communications, expanded digital communications, transactions and customer self-service options. These investments will also support the development of modern pricing programs and rate structures that will allow us to offer additional options to our customers and help our customers better manage their energy usage and increase the value they derive from the use of electricity.

iii. Improves Grid Reliability and Resiliency

45. Evergy describes this customer benefit in several places throughout its STP Report, but summarizes these benefits as follows on pages 37-38 of the report:

Power outages are disruptive and costly for our customers and society. Grid reliability affects daily life, economic output, and public safety. Our plan will ensure high reliability with transmission and distribution infrastructure replacement and automation technology that will also lower overall costs over the life of the assets. Upgrades to T&D infrastructure and investments in asset hardening, grid automation, data handling and analytics capabilities and communications infrastructure will reduce the likelihood of outages due to equipment failure, reduce restoration times and build long-term grid resiliency for the benefit of our customers. Evergy's investments in improving reliability and resiliency will also improve power quality and yield significant benefits based on the value of electricity service. Improving energy efficiencies, including investing in demand side management ("DSM") and developing programs to promote beneficial electrification, will play a key part in providing benefits to grid operation.

46. Section 4 of Evergy's STP Report quantifies the benefits of its Grid Enhancement and Technology Capital Plan. One of these assumed benefits is up to \$770 million in economic value associated with improved reliability and customer investments. Evergy provided the confidential details behind these calculated reliability benefits in response to KEPCO Data Request No. 03-14. The detailed spreadsheets provided in this response support the following improvements in reliability by 2030: 1) a ** ** in Evergy Kansas Central's SAIDI (System Average

Interruption Duration Index) and a **

** in its SAIFI (System Average Interruption

Frequency Index); and 2) a **

** in Evergy Metro's SAIDI and a **

in its SAIFI.

47. Despite several statements in the STP Report that claim the STP will result in improvements in reliability, some of Evergy's discovery responses appear to contradict those claims. In response to Staff Data Request No. 6, Evergy states the following:

The Sustainability Transformation Plan invests an incremental \$100 million in Kansas Central Distribution through 2024. Of this, only a relatively small portion is related to real-time grid management and data analytics directly. As a result, there is not expected to be a material improvement in reliability through this investment for KS Central or the corresponding investment in KS Metro. As discussed during the Grid Mod workshop, this investment will help to avoid future reliability degradation and deploy new capabilities in the field which will promote future resiliency and the integration of distributed energy resources, for example.

Similarly, Evergy provided this response to CURB Data Request No. 3-6

The Sustainability Transformation Plan invests an incremental \$100 million in Kansas Central Distribution through 2024. While Kansas Central has continued to focus resources on asset replacement in recent years, the level of Distribution investment is not expected to materially improve reliability.

In the section of these comments pertaining to Staff's evaluation of the STP, we will address further these seemingly conflicting statements about the reliability benefits of the STP.

b. Outcomes for Investors

48. Beginning on page 43 of the STP Report, Evergy summarizes the benefits that it expects for investors as a result of the STP:

Shareholder benefits include a compelling growth and total return profile, financial strength, improved local sustainability and long-term viability and confidence in the executability of the plan. While delivering shareholder value over the term of

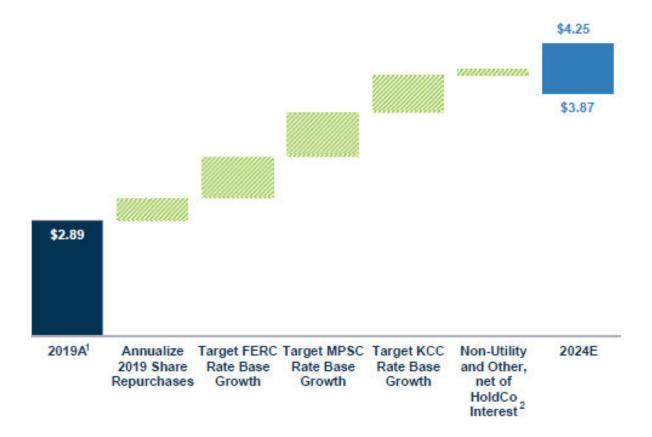
the STP, the plan is also aimed at enhancing the long-term value of the Company beyond the five-year STP.

Evergy has stated that it expects a top-quartile CAGR of 6-8% in Earnings Per Share (EPS) for its shareholders during the period covered by the STP.³⁵ This will be accomplished in part by increasing Evergy's capital expenditures, which Evergy assumes will be recovered from ratepayers in general rate proceedings and through the Transmission Delivery Charge (TDC). If allowed into rates by the KCC and the Federal Energy Regulatory Commission (FERC), these investments will produce a revenue requirement that compensates Evergy's investors for the use of their investment capital. This in turn, will translate into higher EPS than otherwise would have been the case. The following graphic from Evergy's September 2020 Investor Update shows this relationship between capital investment and EPS:

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³⁵ See 20-514 Docket, Evergy STP Report, Attachment 1, Second Quarter 2020 Results, Slide 5, Aug. 5, 2020.

Building Blocks of EPS Growth



Evergy also expects to maintain its strong investment grade credit profile and improve its sustainability rankings with investors and credit rating agencies as a result of the STP.

c. Outcomes for Other Kansas Stakeholders

49. Beginning on page 39 of the STP Report, Evergy describes the community benefits that it expects as a result of the STP. These are: 1) supports regionally competitive rates; 2) creates economic development; and 3) honoring Evergy's commitment to communities. Evergy also explains that it expects investments in grid modernization and renewable generation will create

jobs and other economic activity as well as helping to attract companies to Evergy's service territories.

50. As discussed earlier in these comments, Evergy's STP contemplates the potential retirement of 500 MW of coal-fired generation and the addition of 700 MW of company-owned solar generation. These actions are consistent with Evergy's current goal of an 80% reduction in CO2 Emissions reductions by 2050 relative to 2005 levels. On page 24 of its STP Report, Evergy states that there are opportunities for additional decarbonization and renewable deployment that could support an 85% reduction in CO2 Emissions by 2030. Evergy cautions that the pace of decarbonization will ultimately be defined in the IRP process.

VII. Staff's Evaluation of the STP

51. Staff's evaluation of the STP focuses on: 1) whether the plan is consistent with the regulatory policy goal of regionally competitive rates and reliable electric service as reflected in K.S.A 66-1287; and 2) whether the STP is compliant with the 18-095 Docket merger conditions.

a. Consistency with Regionally Competitive Rates and Reliable Electric Service

52. Evergy's STP Report claims that one of the five "key considerations" in developing the STP was to improve regional rate competitiveness. Evergy has also stated "the regional competitiveness of retail rates and the potential impact on economic development, as reflected in Senate Bill 69, was a guiding principle in developing the STP." Evergy projects that the STP will improve its regional rate competitiveness by lowering its operating cost structure and growing its rate base slower than its regional peers. Evergy projects that the combination of these two

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³⁶ See 20-514 Docket, Evergy's Response to Commission Questions, p. 8 of 13, August 13, 2020.

elements of the STP will produce retail rate changes from 2020-2024 that are below the expected level of inflation when measured company wide, with the following CAGR retail rate changes by individual utility: -.5% for Evergy Kansas Metro, 2.2% for Evergy Kansas Central, 1.8% for Evergy Missouri Metro and 1.9% for Evergy Missouri West.

i. Slower Rate Base Growth than Regional Peers

53. A central element of Evergy's plan to achieve regionally competitive rates is to grow its Rate Base at a pace that is slower than its regional peers. In order to evaluate this element of the STP, Staff examined publicly available information on the projected level of capital expenditures of other electric and multi-utility (combination natural gas and electric) holding companies for the years 2020-2022. This analysis is contained in **Appendix 1** (Electric Only Holding Companies) and **Appendix 2** (Multi-Utility Holding Companies) to these comments. The data used to compile these reports was sourced from S&P Global Market Intelligence.³⁷

54. The table below compares Evergy's projected capital expenditures for the years 2021-2023 to other Electric Only Holding Companies. Columns D and E in this table pertain directly to Evergy's claim that Rate Base growth under the STP will be less than its peers. Column D in the table presents a multiple of the average annual level of capital expenditures from 2021-2023, compared to Depreciation and Amortization Expense during 2019. Because Depreciation Expense results in Accumulated Depreciation, which is a reduction to Rate Base, comparing annual capital expenditure levels to annual Depreciation Expense provides insight into how quickly a company's Rate Base is anticipated to grow over. As the Commission can see, Evergy's ratio of 2.17 ranks 12th out of 17 Electric Only Holding Companies, and 4th highest out of the 6 regional holding

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³⁷ See "RRA Financial Focus, Utility Capital Expenditures Update," April 9, 2021. https://platform.marketintelligence.spglobal.com/web/client?auth=inherit#news/article?id=63578635

companies that were included in Staff's 2019 Rate Study (these companies are represented by an asterisk in the table).³⁸

55. Column E in this table presents the estimated growth in Net Property Plant and Equipment (Net PPE) as a Percentage of 2019 Net PPE (Net PPE is an often used to approximate Rate Base), that is expected to result from these company's capital expenditure projections from 2021-2023.³⁹ In other words, this column estimates how much each company's Rate Base is projected to change as a percentage of existing Rate Base, over the next three years. When comparing this metric to the other holding companies in this list, Evergy's projected growth in Net PPE, as a percentage of existing Net PPE, ranks 10th out of 17 holding companies. Out of the five other holding companies that are regional peers, Evergy's growth in Net PPE is lower than three but higher than two.

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³⁸ See 18-095 Docket, Rate Study of Westar Energy, Inc. and Kansas City Power and Light Company, Years 2008-2018, December 2018.

 $[\]underline{https://estar\ kcc.ks.gov/estar/ViewFile.aspx/S20190114113704.pdf?Id=0ead0c60-c1c0-4cde-8837-c9fe3823204a}$

³⁹ In order to calculate increases in Net PPE, Staff compared the projected levels of capital expenditures for the 2021-2023 period to three years of additional accumulated depreciation (calculated based on 2019 Depreciation and Amortization Expense levels).

		A			В			С		D		Е	
										Average 2021-		2021-2023	
	201	9 Depr.					Cane	ex 3 Year		2023 Cap		Growth in Net	
		Amort.		201	9 Net PPE			2021-2023		Ex/2019 Depr.		PPE as a %	
		llions\$)	Rank		millions\$)	Rank		nillions\$)	Rank	and Amort.	Rank	of 2019 PPE	Rank
Eversource Energy	\$	885	9	\$	27,635	9	\$	10,610	7	3.99	1	28.78%	3
Edison International	\$	1,803	6	\$	44,978	5	\$	16,200	5	3.00	2	23.99%	5
American Electric Power Company, Inc.*	\$	2,515	4	\$	61,096	4	\$	22,380	3	2.97	3	24.28%	4
NextEra Energy, Inc.	\$	4,216	1	\$	82,571	1	\$	36,815	1	2.91	4	29.27%	1
PNM Resources, Inc.	\$	301	13	\$	5,610	13	\$	2,543	12	2.82	5	29.23%	2
PG&E Corporation	\$	3,234	3	\$	63,921	3	\$	24,600	2	2.54	6	23.31%	6
FirstEnergy Corp.	\$	1,220	8	\$	31,881	8	\$	9,245	8	2.53	7	17.52%	7
PPL Corporation	\$	1,280	7	\$	36,578	6	\$	8,985	9	2.34	8	14.07%	13
Pinnacle West Capital Corporation	\$	664	11	\$	14,378	11	\$	4,500	11	2.26	9	17.44%	8
Otter Tail Corporation*	\$	78	17	\$	1,775	17	\$	521	17	2.22	10	16.15%	9
OGE Energy Corp.*	\$	355	12	\$	8,965	12	\$	2,345	13	2.20	11	14.28%	12
Evergy Inc.	\$	862	10	\$	19,451	10	\$	5,612	10	2.17	12	15.56%	10
DACORP, Inc.	\$	174	16	\$	5,309	14	\$	1,053	15	2.02	13	10.01%	15
Exelon Corporation	\$	3,724	2	\$	81,538	2	\$	21,224	4	1.90	14	12.33%	14
Entergy Corporation*	\$	2,182	5	\$	35,516	7	\$	11,645	6	1.78	15	14.35%	11
ALLETE, Inc.*	\$	201	15	\$	4,406	16	\$	1,020	16	1.69	16	9.49%	16
Hawaiian Electric Industries, Inc.	\$	278	14	\$	4,531	15	\$	1,175	14	1.41	17	7.52%	17
Avg. Ex Evergy	\$	1,444		\$	31,918		\$	10,929		2.41		18.25%	
Average Regional Peers Ex Evergy	\$	1,066		\$	22,352		\$	7,582		2.17		15.71%	

56. The next table below presents similar information, but this time for Multi-Utility Holding Companies. As the Commission can see, Evergy's projected multiple of Average Capital Expenditures to Depreciation and Amortization ranks 29th out of 34 utilities. Out of the 12 holding companies that are regional peers of Evergy, Evergy ranks 10th out of 12 for this metric. When looked at growth in Net Plant, as a percentage of existing Net Plant, Evergy ranks 26th out of 34 holding companies. Out of the eleven non-Evergy holding companies that are regional peers, Evergy's growth in Net Plant is lower than all but two.

Average Regional Peer Ex Evergy Source: S&P Global Market Inteligence, FER	\$ 31,263		\$	10,872		2.58		20.67%	
Avg. Ex Evergy	\$ 33,088		\$	11,606		2.66		21.55%	
Hawaiian Electric Industries, Inc.	\$ 4,531	32	\$	1,175	30	1.41	34	7.52%	34
ALLETE, Inc.*	\$ 4,406	33	\$	1,020	32	1.69	33	9.49%	
Entergy Corporation*	\$ 35,516	14	\$	11,645	12	1.78	32	14.35%	
Exelon Corporation	\$ 81,538	4	\$	21,224	7	1.90	31	12.33%	_
IDACORP, Inc.	\$ 5,309	30	\$	1,053	31	2.02	30	10.01%	
Evergy Inc.	\$ 19,451	22	\$	5,612	23	2.17	29	15.56%	
OGE Energy Corp.*	\$ 8,965	27	\$	2,345	27	2.20	28	14.28%	_
Otter Tail Corporation*	\$ 1,775	34	\$	521	34	2.20	27	16.15%	_
Duke Energy Corporation Pinnacle West Capital Corporation	\$ 103,785 14,378	25	\$	35,338 4,500	25	2.28	25	19.09% 17.44%	
PPL Corporation	\$ 36,578	12	\$	8,985	21	2.34	24 25	14.07%	
Southern Company	\$ 84,880	2	\$	23,700	5	2.37	23	16.15%	
Consolidated Edison Inc.	\$ 44,746	9	\$	12,131	11	2.40	22	15.82%	_
Public Service Enterprise Group Inc.	\$ 36,126	13	\$	9,185	20	2.45	21	15.06%	_
CenterPoint Energy Inc.	\$ 21,008	21	\$	9,910	18	2.52	20	28.45%	_
FirstEnergy Corp.	\$ 31,881	15	\$	9,245	19	2.53	19	17.52%	21
PG&E Corporation	\$ 63,921	6	\$	24,600	3	2.54	18	23.31%	_
Xcel Energy Inc.*	\$ 41,155	10	\$	13,930	10	2.60	17	20.84%	18
Alliant Energy Corporation*	\$ 13,543	26	\$	4,525	24	2.66	16	20.85%	
CMS Energy Corp.	\$ 18,545	23	\$	7,920	22	2.66	15	26.66%	
Dominion Energy Inc.	\$ 69,581	5	\$	24,200	4	2.71	14	21.94%	
MDU Resources Group Inc.*	\$ 5,032	31	\$	2,092	28	2.72	13	26.31%	_
Black Hills Corp.*	\$ 5,508	29	\$	1,709	29	2.72	12	19.64%	_
MGE Energy, Inc.	\$ 1,643	35	\$	585	33	2.72	11	22.54%	
PNM Resources, Inc.	\$ 25,100 5,610	28	\$	2,543	26	2.82	10	29.23%	_
NextEra Energy, Inc. DTE Energy Co.	\$ 82,571	18	\$	36,815 10,888	14	2.91 2.87	9	29.27% 28.28%	_
American Electric Power Company, Inc.*	\$ 61,096	7	\$	22,380	6	2.97	8	24.28%	_
Edison International	\$ 44,978	8	\$	16,200	9	3.00	6	23.99%	_
Ameren Corp.*	\$ 24,412	19	\$	10,680	15	3.55	5	31.44%	
WEC Energy Group Inc.*	\$ 23,675	20	\$	10,252	17	3.69	4	31.57%	
Eversource Energy	\$ 27,635	16	\$	10,610	16	3.99	3	28.78%	7
Avangrid, Inc.	\$ 25,421	17	\$	11,579	13	4.08	2	34.38%	2
Sempra Energy	\$ 37,043	11	\$	19,515	8	4.15	1	39.98%	1
Holding Company	019 Net PPE nillions\$)	Rank	To	ex 3 Year tal 2021- 2023 nillions\$)	Rank	Average 2021- 2023 Cap Ex/2019 Depr. and Amort.	Rank	Growth in Net PPE as a % of 2019 PPE	Ran
								2021-2023	

57. Thus at the Evergy holding company level, it appears that Evergy's capital investment plans would indeed allow it to improve its regional rate competitiveness over the next several years. However, as these comments have noted, the projected rate impacts by jurisdictional utility are not the same as what Evergy projects its company-wide rate impacts to be. While Evergy projects its overall rates to increase by a CAGR of 1.6% from 2020-2024, a rate which is less than the projected rate of inflation of 2.2%, ⁴⁰ it anticipates its Evergy Kansas Central rates to increase at a level equivalent to inflation, at a CAGR of 2.2%. Evergy projects its Kansas Metro rates to decline at a CAGR of -.5% per year, creating an average Kansas rate increase for both utilities at 1.5% CAGR from 2020-2024.

58. This disparity in projected rate impact between Evergy Kansas Central and Evergy Kansas Metro is driven primarily by the significant projected increase in Evergy Kansas Central's TDC rate during the years covered by the STP. Evergy projects a 52.38% increase in the TDC surcharge during this time, or 11.3% CAGR from 2020-2024. The cause for this increase in the

TDC is from a **

.**4

For comparison, Evergy projects its Rate Base to grow by the following amounts, per jurisdictional utility: **

.**⁴³ Later in these comments, Staff will recommend that Evergy consider phasing in its level of Transmission investment over a longer time frame or shifting some of this investment to Distribution investments. Shifting some Transmission investment to Distribution would provide

⁴⁰ Congressional Budget Office projections July 2020.

⁴¹ See 21-088 Docket, Operating Efficiency Workshop Supplemental Materials filed December 22, 2020.

⁴² See Confidential Financial Model, lines 1259 and 1268.

⁴³ See Confidential Financial Model, lines 1547, 1555, and 2018.

a more direct customer reliability impact, while causing less rate impact because Evergy's KCC-jurisdictional ROE is 100 basis points less than its FERC-jurisdictional ROE.

ii. Operating Cost Savings

59. Another critical provision of the STP that Evergy plans to utilize to improve its regional
rate competitiveness is the operating cost reductions discussed in detail earlier in these comments.
Evergy's plan calls for NFOM reductions of \$210 million and FPPC reductions of \$145 from 2019
levels by 2024. Whether these cost savings come to fruition, and how they are realized/allocated
to each individual utility company, will affect to a significant degree any rate impact from Evergy's
STP. For example, Evergy projects a
** 44

60. While Evergy projects that most of the rate impact associated with KCC-jurisdictional capital investment will be offset by O&M savings, these savings are not guaranteed, nor are they guaranteed to occur in the proportions that Evergy has allocated them in the Confidential Financial Model. As Evergy explained in response to Staff Data Request No. 50, the allocations of O&M savings in the Confidential Financial Model were

"** If Evergy's actual cost savings or the allocation of these savings ends up

⁴⁴ See Confidential Financial Model, lines 1158 and 1643. It is important to note that these figures include all KCC-jurisdictional capital expenditures and operating cost changes since the last rate case in 2018, thus they are not related strictly to the STP.

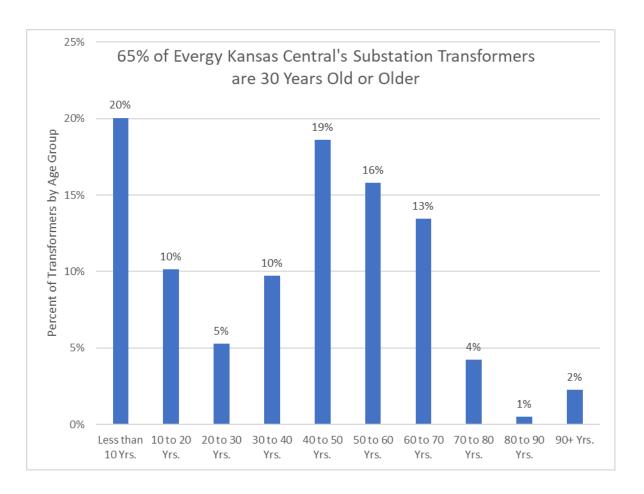
significantly different than projected, the rate impact of the STP could end up much different than currently estimated, and Evergy's ability to make progress towards regionally-competitive rates could be jeopardized.

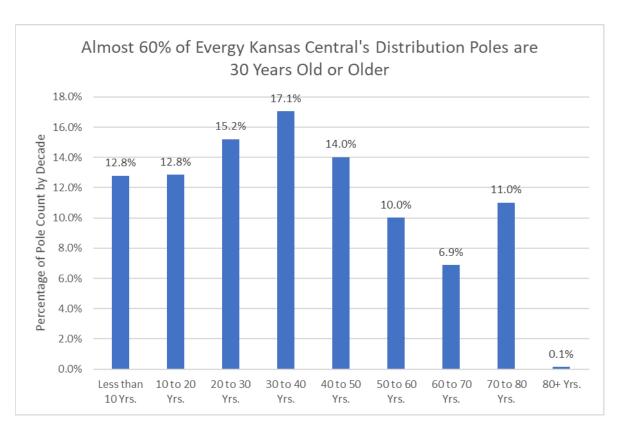
61. As discussed earlier in these comments, Evergy appears to have identified enough O&M savings charters to meet or exceed its current projections for operating savings. This is absolutely critical to ensuring that Evergy is able to improve its regional rate competitiveness in the coming years. However, it is also critical that these operating cost savings do not jeopardize non-reliability related customer service metrics, like slower response times to outages or customer service calls. Later in these comments, Staff will recommend additional reporting mechanisms to ensure visibility into Evergy's performance as it executes the STP. Staff will recommend that these reports be based on the Key Performance Indicators (KPIs) that Evergy has developed to track and report its performance internally. These reports could also be used to develop the framework for a Performance Based Ratemaking (PBR) program that seeks to align the incentives of Evergy with the incentives of its ratepayers.

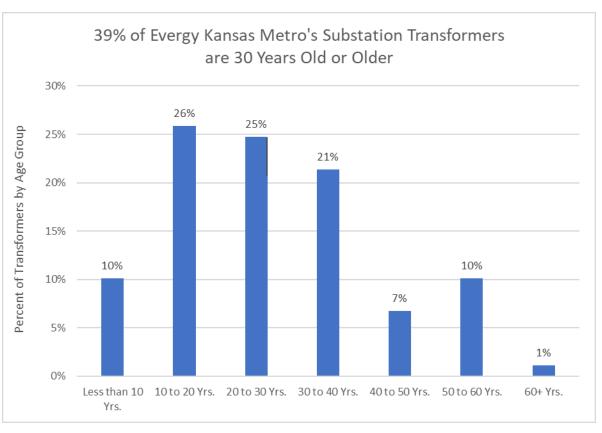
iii. Reliable Electric Service

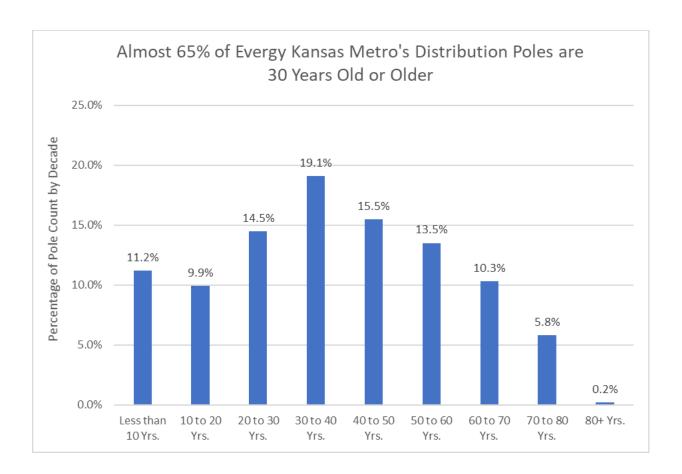
62. K.S.A 66-1287 reflects a regulatory policy goal of achieving "regionally competitive electric rates and reliable electric service." While this statute is often referred to as endorsing regionally competitive electric rates, it also appropriately balances that goal with the need to maintain reliability of electric service. Notably, every sentence in the statute that refers to regionally competitive rates also refers to reliable service. In Evergy's STP Report and its workshop presentations, Evergy presents a strong argument for investing in its infrastructure to maintain or improve reliability. The system as a whole is on average more than 30 years old with

some components as old as 100 years. In response to Staff Data Request No. 42, Evergy provided the following data regarding the age of its substation transformers and distribution poles.









63. In general, the need for investment in Transmission and Distribution is to provide reliability and/or resiliency. Reliability can be defined as maintaining electric delivery to meet the minimum criterion of providing sufficient service. Electric Resilience can be defined as designing a system to withstand potential threats or minimize a degradation in reliability. In Staff's opinion, reliability and resilience are sequential. That is to say, without a minimum level of reliability, an electric grid cannot be resilient. In its STP Report, Evergy agrees with this concept by stating the first step is to, "...make sure the electrical infrastructure is in good condition, and can deliver electricity to customers safely, reliably, and efficiently. This means replacing aging equipment, poles and wires that are reaching end of life and are more prone to failure." 45

⁴⁵ See 20-514 Docket, STP Report, p. 13 of 54, August 13, 2020.

64. Despite this, at 2019 investment levels, Evergy is replacing less than 1% of its Distribution Wood Poles each year. 46 Specifically, in 2019, Evergy Kansas Central replaced .63% of its wood poles and Evergy Kansas Metro replaced .40% of its Distribution Wood Poles. Using the infrastructure aging charts provided above, we can estimate that 35% of Evergy Kansas Central and 37.5% of Evergy Kansas Metro's Distribution Wood Poles are beyond their useful lives. 47 At 2019 investment levels it would take 55 years to replace Evergy Kansas Central's wood poles and 93 years to replace Evergy Kansas Metro's wood poles that have exceeded their useful lives. 48 And that is just to replace the wood poles that need replaced today.

65. In Staff's opinion, many of Evergy's Distribution System assets have reached the end of their useful economic lives. Staff also agrees with Evergy that the "fix at failure" practice is unsound in today's utility operating environment and will lead to future degradation of reliability if left unchecked. Staff contends that Evergy's system investment focus should be on providing reliable and sufficient service and replacing aging foundational infrastructure. Where an investment is necessary to address reliability issues, the investment should also consider resiliency improvements that may be associated with the reliability investment. For example, a substation reliability project should also include resiliency investments to provide better system operability such as substation automation. However, there needs to be a clear purpose for resiliency projects that address a specific goal, and the technology investments that are made need to be modern proven technologies that will provide benefit to customers and be used and useful for years to come.

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⁴⁶ See Response to Staff Data Request Nos. 26 and 27.

⁴⁷ Given estimated useful life of 40-45 years, this analysis assumes half of the poles in the 40-50 year category are 45 years old or older.

years old or older.

48 If 35% of the poles need to be replaced, a 1% per year replacement rate would take 35 years. 35% divided by .63% equals 55 years. 37.5% divided by .40% equals 93.75 years.

- 66. Staff believes that the U.S. DOE Strategy and Implementation Planning Guidebook (Modern Distribution Grid Guidebook) provides a useful framework for Evergy to follow in planning its Grid Modernization investment. This publication presents four key concepts to consider:
 - 1. First, well-articulated objectives that convey scope and timing requirements are essential to guide the planning process. It becomes important in grid modernization plans to present a logic that links a proposed technology deployment roadmap back to stated objectives.
 - 2. Second, grid modernization planning is one aspect of a larger integrated distribution planning process, in which foundational investments are required to enable advanced grid capabilities.
 - 3. Third, undertaking a system engineering approach to determine functional and structural needs in line with stated objectives should inform technology choices. The Guidebook applies principles from grid architecture to govern objectives-based planning.
 - 4. Fourth, technology implementation plans can adopt proportional deployment strategies (i.e., they can provide advanced grid capabilities where most needed first and/or initially improve grid function with simpler solutions, followed by more sophisticated approaches at a later time, as needed). The stratagem, termed "walk-jog-run," is useful to consider when affordability constraints, modifications to utility processes, or technology readiness may dictate the pace of grid modernization. 49
- 67. In Docket No. 02-GIME-365-GIE (02-365 Docket), which was a general investigation into service quality standards, the Commission provided several mandates to electric utilities operating in Kansas. In part, those mandates were as follows:
 - Each utility's electrical transmission and distribution system shall be designed,
 constructed, maintained, and electrically reinforced and supplemented as required to

⁴⁹ See U.S. DOE Strategy and Implementation Planning Guidebook, Volume IV of the Modern Distribution Grid Series, p. 4 of 145, June 2020.

https://gridarchitecture.pnnl.gov/media/Modern-Distribution-Grid Volume IV v1 0 draft.pdf

reliably perform the power delivery burden placed upon it in the environment in which it is located.

- Each utility shall carry on an effective preventive maintenance program and shall be capable of emergency repair work on a scale that is appropriate to its scope of operations and to the physical condition of its system.
- Each utility shall keep records of service interruptions on its system, and shall make an analysis of the records for the purpose of determining steps to be taken to prevent recurrence of interruptions.

The 02-365 Docket also required certain distribution system wide reliability metrics to be reported on an annual basis. At the time of the 02-365 Order, the Commission contemplated setting a reliability standard but has not yet taken that step.

68. In response to Staff Data Request No. 43, Evergy provided its current reliability position compared to its peers. The response separated Evergy Kansas Central and Evergy Metro as follows:

	Evergy Kans	sas Central	Evergy Kansas M	<u>etro</u>
SAIDI:	EEI Tier 2	IEEE 3rd Quartile	SAIDI: EEI Tier 1 IEEE 1	st Quartile
SAIFI:	EEI Tier 3	IEEE 3rd Quartile	SAIFI: EEI Tier 1 IEEE 1	st Quartile
CAIDI:	EEI Tier 2	IEEE 2nd Quartile	CAIDI: EEI Tier 1 IEEE 1	st Quartile
CEMI ⁵⁰ :	EEI Tier 2	IEEE not available	CEMI: EEI Tier 2 IEEE r	not available

In response to a follow-up Data Request No. 52, Evergy provided the following EEI reliability quartile values:

	2019 Relial	oility Indices (E	xcluding Major	Events)
	1st	2nd	3rd	4th
SAIFI	<0.875	0.875 - 1.036	1.056 - 1.322	>1.322
CAIDI	<95.28	95.28 - 110.01	110.47 - 130.80	>130.80
SAIDI	<82.63	82.63 - 113.45	114.56 - 160.55	>160.55

Additionally, this confidential graphic shows how Evergy and its legacy operating companies

Westar and KCPL have performed in terms of reliability in recent years. **Graphic is

Confidential**

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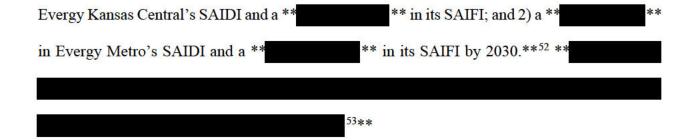
⁵⁰ CEMI stands for Customers Experiencing Multiple Interruptions.



69. Evergy's STP Report contains several claims that the STP will "improve reliability." However, Evergy has provided little details or specifics as to what reliability improvements would be achieved or when they would occur. Rather, Staff views Evergy's arguments supporting the benefits of the STP as more of a qualitative or intuitive argument that newer and more modern equipment will provide better service. Lastly, in response to discovery issued in this Docket, Evergy was unwilling to quantify or commit to any specific reliability improvements as a result of the STP.

70. Despite Evergy's unwillingness to commit to specific improvements in reliability in discovery, it did calculate \$770 million in economic benefits from improved reliability resulting from the STP in its STP Report.⁵¹ These benefits are associated with a **

⁵¹ See 20-514 Docket, STP Report, Appendix 1, p. 20 of 54, August 13, 2020.



71. Evergy's presentation during the Grid Modernization Workshop presented the following data about the age of its Transmission System:

Key Asset Types	Averaç (ye:	Expected Life	
225 2344	Kansas Central	Kansas Metro	(years)
Wood Poles	41	36	40-45
Overhead Conductor	44	-	50
Substation Transformer - Non-LTC	50	39	45-50
Circuit Breakers - Air	52	43	50
Circuit Breakers - Oil	48	52	50

This data would appear to support the fact that much of Evergy's Transmission System has also met or exceeded its useful life.

72. Because \$2.0 billion of Evergy's estimated \$3.5 billion in Grid Modernization capital investment in Kansas is targeted towards Transmission spend, Staff questioned how Evergy's

⁵² See Evergy response to KEPCO Data Request No. 03-14.

⁵³ Based on the data provided in response to KEPCO 03-14, Evergy Kansas Central's average reliability from 2017-2019 was a **

Evergy Metro's average reliability for the same period was a *

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Transmission outages contributed to its SAIDI and SAIFI statistics during the years 2017-2019. Evergy Kansas Central's data was provided in response to Staff Data Request No. 28 as follows:

Evergy Kansas Central—Impact to SAIDI on Transmission Outages

Estima	Estimated Average Impact to SAIDI for Each Year Caused by 69kV and Above					
Year	Normalized	Not Normalized				
2017	7.6% or 7.30 minutes	6.2% or 7.77 minutes				
2018	13.0% or 12.62 minutes	9.7% or 12.87 minutes				
2019	6.4% or 7.09 minutes	5.0% or 8.95 minutes				

E	Estimated Average Impact to SAIDI for Each Year Caused by 34kV						
Year	Normalized	Not Normalized					
2017	9.2% or 8.88 minutes	7.8% or 9.78 minutes					
2018	4.8% or 4.69 minutes	7.7% or 10.20 minutes					
2019	4.9% or 5.44 minutes	4.4% or 7.79 minutes					

Evergy Kansas Metro's data was provided in response to Staff Data Request No. 29 as follows:

Evergy Kansas Metro—Impact to SAIDI on Transmission Outages

• No customer outages for voltages higher than 69 kV and above occurred on the system between 1/1/2017 and 12/31/2019.

E	Estimated Average Impact to SAIDI for Each Year Caused by 34kV					
Year	Normalized	Not Normalized				
2017	1.5% or 0.98 minutes	6.7% or 32.37 minutes				
2018	8.1% or 4.66 minutes	20.2% or 24.48 minutes				
2019	8.6% or 5.28 minutes	2.3% or 8.95 minutes				

73. Thus, while Evergy's Transmission system is aging, it is also performing relatively well and is not contributing more than 20% of the lost reliability of the system as a whole. For an explanation of how this system is performing as well as it is, Staff would point to Evergy's

maintenance practices and the oversight of the North American Electric Reliability Corporation (NERC) which has oversight over the reliability of the Nation's transmission system for voltages greater than 100 kV. Staff posits that the myriad of rules and regulations placed on the Transmission grid by NERC requires constant review of Transmission lines. Although NERC does not regulate the condition or age of Transmission structures or conductors, its rules regarding such topics as reliability and contingency plans serve to make a utility provide increased vigilance and maintenance for its system.

74. While nearly 60% of Evergy's Grid Modernization capital investment in Kansas is focused on Transmission investment, outages on the Evergy Transmission system seldom account for more than 20% of Evergy's SAIDI statistics. Additionally, the Distribution system is five times as extensive, and in generally poorer condition that the Transmission system. When Evergy has completed major Distribution system rebuilds in the past, these initiatives have resulted in dramatic improvements in customer reliability.⁵⁴ Staff suggests that each of these facts point to less emphasis on Transmission infrastructure replacement and more on Distribution system enhancements/replacements.

75. While Staff agrees the Evergy Transmission and Distribution systems may be in need of an organized and paced infrastructure replacement program, Staff contends that the best approach for this program is to provide the stakeholders with a transparent analysis that demonstrates the annual Grid Modernization projects are the most efficient way of meeting improving customer reliability and meeting STP objectives. This will help the STP achieve true balance between improving reliability and making progress towards regionally competitive rates.

⁵⁴ See Staff Data Request No. 9 (Evergy Kansas Metro distribution lateral program) and Slide 13 of Evergy's Grid Modernization Workshop Presentation, December 3, 2020 (referencing the Quinton Heights Circuit Rebuild program approved as part of the Electric Distribution Grid Resiliency effort).

Staff suggests that Evergy has the tools to make this demonstration, as the existing prioritization models that Evergy uses to select circuits to perform Distribution system capital investment relies on an identification and review of the system condition and contribution to SAIDI of each circuit in Evergy's system.

76. Based on all of the foregoing, it appears that the STP has the potential to improve reliability, thus advancing one prong of the regulatory policy goal reflected in K.S.A 66-1287. However, Evergy has sent mixed messages regarding its confidence in the ability of the STP to result in meaningful improvement in reliability metrics and nearly 60% of the Kansas capital investment spend is targeted towards assets that contribute less than 20% of customer outage minutes. Later in these comments, Staff will recommend that Evergy propose targeted reliability metrics to report to the Commission and to judge the success of the STP Grid Modernization investments. Additionally, Evergy should provide stakeholders with a transparent analysis that demonstrates the annual Grid Modernization projects are the most efficient way of meeting the improving customer reliability metrics. Alternatively, these performance metrics could be used to implement a limited PBR mechanism that rewards/penalizes Evergy for performance. Another option is that the Commission could open another formal proceeding to gather evidence and set a minimum reliability standard for Evergy for the duration of the STP and beyond.

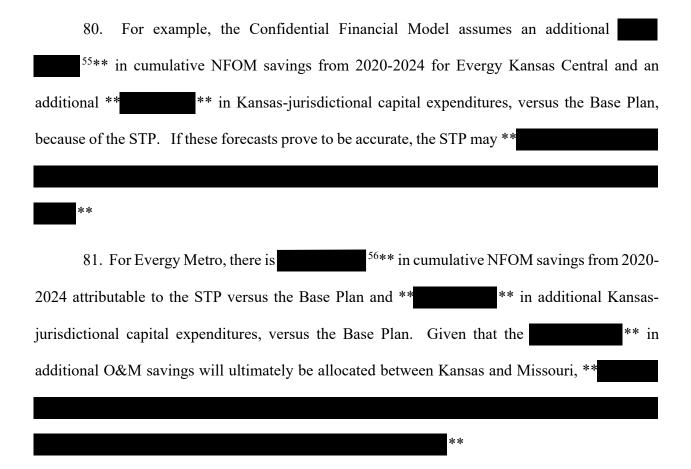
b. Consistency with 18-095 Docket Merger Conditions

77. Staff requested the Commission open this Docket to "evaluate the potential impact on the core elements of the merger agreement approved by the Commission in the 18-095 Docket and to gain an understanding of how the STP will effect service and rate trajectories." When Evergy filed its STP Report, it also filed a list of each of the 55 conditions that were part of the merger

agreement approved by the Commission, along with Evergy's evaluation of the STP's impact on that condition. Staff has reviewed this list and Evergy's comments specific to each of the 55 conditions the Commission adopted upon approval of the merger. Staff agrees that nothing in the STP appears to be contrary to these conditions that were part of the merger agreement.

78. While Evergy's STP is technically not a violation of any of the conditions of the merger agreement, the additional capital expenditures and NFOM savings that Evergy plans as a result of the STP has the potential to affect the benefits that will be shared with ratepayers through the Earnings Review and Sharing Plan (ERSP). This is because the ERSP shares excess earnings, and not excess O&M savings, so additional Kansas-jurisdictional capital expenditures would reduce the likelihood of additional earnings in excess of 9.3% that would have been shared 50/50 between ratepayers and shareholders. On the other hand, additional O&M expense savings without corresponding levels of additional capital expenditures may make it more likely that Evergy would earn greater than its authorized return, resulting in potentially greater benefit through the ERSP for ratepayers.

79. The degree to which the benefits of the ERSP will be affected is not clear. Given the fact that \$612 million of the \$915 million of incremental Kansas capital spend in the STP is FERC-jurisdictional, that leaves \$303 million that is Kansas-jurisdictional (split further, **). Because FERC-jurisdictional capital spend is removed from the ERSP calculation, it is possible that there will be enough incremental operating savings occurring at the Kansas-jurisdictional utility level to more than offset any Kansas-jurisdictional incremental capital expenditures from the STP.



82. Whether the result is that the STP makes over earnings more or less likely at the individual utility level, as long as all STP capital investments and all incremental NFOM expenses flow through the ERSP mechanism and accounting schedules as designed, Evergy's STP will not be a violation of the merger conditions approved by the Commission in the merger agreement.

c. Staff's Feedback/Recommended Revisions to the STP

83. While Evergy has been clear that it is not seeking Commission approval of the STP, nor is Commission-approval required, Evergy has stated the following about the importance of stakeholder feedback for informing its final version of the STP:

⁵⁵ See Confidential Financial Model, line 1210

⁵⁶ See Confidential Financial Model, line 1495.

One of the central elements of the STP is to engage with stakeholders around our plan and discuss the linkage between our operating and capital plans and retail rate impacts. This insures that changes to retail rates reflect the value that ratepayers and other stakeholders place on investments that Evergy is making on their behalf.⁵⁷

Also,

Successful stakeholder engagement means that the final version of the STP will likely involve changes from the current plan because it will be informed by and reflect suggestions made by stakeholders. And it means that the final version of the STP should have a broad array of community, business, customer and political support. While we may not be able to reach 100 percent consensus on every aspect of the STP, we are striving for a level of engagement from stakeholders that allows us to move forward with a plan that reflects a balancing of interests that all stakeholders can endorse.⁵⁸

Staff's intention is for these comments to provide Evergy with open and transparent feedback so that Evergy may consider these concerns when developing its final STP.

84. Overall, Staff views the STP as a relatively balanced and well-crafted plan that has the potential to improve reliability for Evergy's customers, continue the transition towards cleaner and lower cost energy sources, and continue to make progress towards regionally competitive rates. However, proper execution of this plan is critical, and there are elements of the plan that deserve serious reconsideration and likely revision. Specifically, the projected disparate rate impact between Evergy Kansas Central and Evergy Kansas Metro is an issue that should be addressed/revised in the final STP. One way that this can be addressed is to spread out intended Transmission investments over a longer period or to shift some of Evergy Kansas Central's Transmission investment to Distribution investment. A shift to Distribution spending would have a more direct and meaningful impact on customer reliability and also aid in Evergy's efforts to

⁵⁷ See 20-514 Docket, STP Report, Appendix II, Evergy Response to Commission Questions, p. 9-10 of 13, August 13, 2020.

⁵⁸ See 20-514 Docket, STP Report, p. 46 of 54, August 13, 2020.

achieve regionally competitive rates because the ROE on FERC-jurisdictional Transmission investments that flow through the TDC is 100 basis points higher than the KCC-authorized ROE.

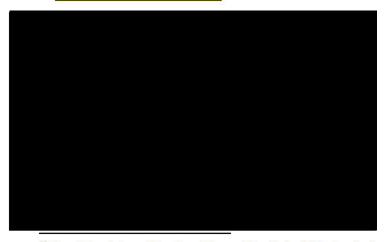
- 85. The operating cost savings that are contemplated under the STP are absolutely critical to Evergy's ability to make progress towards regionally-competitive rates in the years to come. These cost savings should be tracked and reported to the Commission in order to drive accountability and increase the likelihood of success. Additionally, if these cost savings end up not coming to fruition, Evergy must be willing to slow down the pace of its capital investment program in order to continue to make progress towards regionally competitive rates. Likewise, if operating cost savings end up exceeding current estimates, this over performance should be used to reduce the rate impact of currently planned capital investments further, not be seen as an opportunity by management to increase the capital budget again. Lastly, if operating cost savings occur or are allocated between utility jurisdictions differently than currently modeled/expected, Evergy's capital investment program must take these realities into account. If one Kansas jurisdiction sees significant rate increases while another receives significant rate reductions, that will not aid the State's efforts towards achieving regional rate competitiveness.
- 86. Evergy's capital investments must provide tangible, quantifiable benefits for customers by way of improvements in reliability. This is the only way that customers will truly value the investments that Evergy is making on their behalf. Evergy has thus far been unwilling to commit to tangible improvements in reliability associated with its Grid Modernization program, but it has modeled and assumed significant improvements in reliability for purposes of claiming economic benefits associated with the STP. Evergy and other stakeholders should collaborate and provide aggressive but realistic reliability targets for each year during the STP, and for the five years that follow. Evergy should also meet annually with stakeholders to present its plan as to best meet

these reliability metrics in the most efficient fashion. This could be a least-cost best-fit analysis, a formal cost benefit analysis, or potentially some combination of the two. Staff suggests this analysis be informed by the frameworks presented in the recent U.S. DOE whitepaper titled: "Benefit-Cost Analysis for Utility-Facing Grid Modernization Investments: Trends, Challenges, and Considerations.⁵⁹ An alternative would be to develop a PBR mechanism that rewards Evergy's performance for achieving reliability metrics and penalizes under performance. Lastly, if the Commission is not satisfied that any of these methods are providing the expected results, it could open another formal docketed proceeding to gather evidence and set minimum reliability standards for Evergy.

d. Staff's Recommended Reporting Mechanisms

87. One of the concepts discussed by Evergy during the series of three Commission workshops involving the STP was the Key Performance Indicators (KPIs) that Evergy was developing to track and report internally on its progress towards key provisions of the STP. In response to Staff Data Request No. 25, Evergy provided a confidential list of these KPIs, as follows:



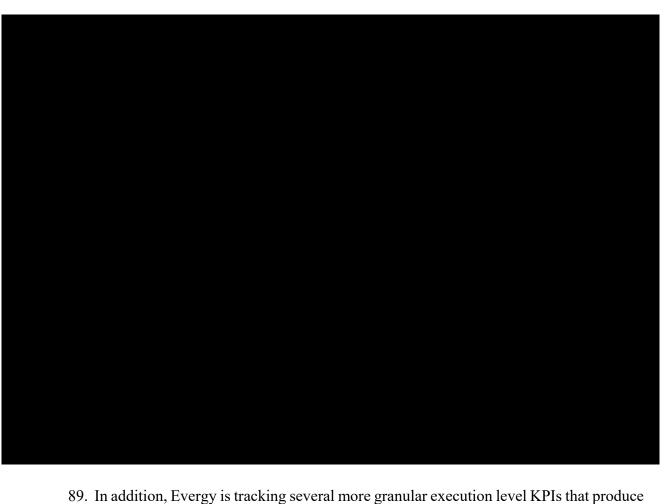


⁵⁹ See https://eta-publications.lbl.gov/sites/default/files/gmlc bca final report 20210202.pdf February 2021.



88. Without getting into the specifics of the categories being tracked or the individual measures, the Commission can see from this list that Evergy is tracking and reporting internally many of the key areas that would define success under the STP. Through reviewing the Board of Directors meeting materials provided in discovery during this proceeding, Staff has learned that these KPIs are being reported **

.** A confidential example of that reporting scoreboard is presented here: **Graphic is Confidential**



89. In addition, Evergy is tracking several more granular execution level KPIs that produce the data necessary to report the Board and senior management level KPIs, and to track the success of individual work streams necessary for STP success.

Confidential examples of these granular level KPIs are as follows: **Graphic is Confidential **



90. Ultimately, the data that Evergy is tracking and reporting internally will measure whether Evergy is successful in its execution of the STP. Staff recommends that the Board and senior management level KPIs be reported on a quarterly basis to the KCC in a compliance docket. Additionally, once per year Evergy should provide a more comprehensive report that provides all the detail tracked for the granular execution level KPIs. Collectively this data will allow the Commission to determine whether Evergy is executing its STP successfully, and whether Evergy is making progress towards regionally competitive rates and reliable electric service. If Evergy is not making progress on these fronts, this data will allow the Commission to take the action necessary to correct Evergy's course. While the Commission is not Evergy's business manager, the Commission does have a shared responsibility under K.S.A. 66-101b to ensure that Evergy is providing efficient and sufficient service at just and reasonable rates.

VIII. Conclusions and Summary of Recommendations

- 91. Overall, Staff views the STP as a balanced and reasonable plan that has the potential to improve Evergy's regional rate competiveness and service reliability. This is not an easy feat, as these two objectives are often times in competition with one another. However, Staff also suggests that there are several refinements that should be made to the STP if it is likely to be a plan that all (or a majority) of stakeholders can support. With that context as the backdrop, Staff suggests the following:
 - Evergy should strive to reduce if not eliminate the disparity in projected rate impacts of the STP to Evergy Kansas Central and Evergy Kansas Metro. If this disparity is not addressed, the ability of Evergy to make meaningful progress towards regionally competitive rates in Kansas will be significantly jeopardized.

- Evergy and stakeholders should collaborate and propose aggressive but achievable reliability metrics for SAIDI, SAIFI, CAIDI and CEMI to report to the Commission and to judge the success of the STP Grid Modernization investments. There may be other objectives of Evergy's Grid Modernization investment (outside of standard reliability metrics) that need to be considered as well. Staff suggests the parties should develop these objectives and performance metrics using the framework set out in the United States Department of Energy (DOE) Next Generation Distribution System Platform Initiative (DSPx) Modern Distribution Grid series. This would allow ratepayers to appreciate and value the investments that Evergy is making on their behalf, and it would provide tangible proof that the investments Evergy is making are producing progress towards the reliability side of the regulatory policy goal reflected in K.S.A. 66-1287.
- Evergy and other stakeholders should report the progress of the initiative to develop reliability and performance metrics on a quarterly basis with the Commission in a compliance filing. In the event that the parties are unable to make progress towards the establishment of performance metrics and reliability objectives for the Grid Modernization program, the Commission could order the establishment of a formal proceeding to gather evidence and set minimum reliability/performance standards for Evergy.
- Annually, Evergy should provide stakeholders with a transparent analysis that
 demonstrates the planned Grid Modernization projects are the most efficient way of
 meeting the defined customer reliability metrics. This could be a least-cost best-fit

⁶⁰ These performance-metrics could also be used to design a limited PBR plan that seeks to reward and/or penalize Evergy's reliability performance as additional Grid Modernization investments are made throughout the course of the STP and beyond.

⁶¹ See U.S. Department of Energy, Modern Distribution Grid Project, https://gridarchitecture.pnnl.gov/modern-grid-distribution-project.aspx/.

analysis, a formal cost benefit analysis, or potentially some combination of the two. Staff suggests this analysis be informed by the frameworks presented in the recent U.S. DOE whitepaper titled: "Benefit-Cost Analysis for Utility-Facing Grid Modernization Investments: Trends, Challenges, and Considerations.⁶²

- Evergy should consider phasing in its FERC-jurisdictional Transmission investment over a longer time frame than five years, such as seven to ten years, so as to reduce the rate impact of these investments on Evergy Kansas Central ratepayers. Alternatively, Evergy should consider shifting this investment towards additional Distribution projects, which Staff contends will have a greater impact on customer reliability than Transmission investments. Additionally, because distribution investments would be KCC-jurisdictional, the ROE earned on this investment would be 100 basis points lower than the FERC-authorized ROE of 10.3%. This will allow Evergy to make more progress towards regionally competitive rates and reliable electric service as reflected in K.S.A 66-1287.
- Once a quarter, Evergy should report its full list of Board and senior management level Key Performance Indicators (KPIs) to the Commission in a compliance docket. This report should be supplemented annually with all of the granular execution level KPI data tracked and reported internally within Evergy. This will allow the Commission to monitor Evergy's performance on the different areas of the STP, and intervene in the event that it becomes concerned about Evergy's ability to provide efficient and sufficient service and just and reasonable rates.

⁶² See https://eta-publications.lbl.gov/sites/default/files/gmlc bca final report 20210202.pdf Feb. 2021

Electric Only Holding Company Capital Expenditure Analysis Appendix 1 E E

										Average 2021-		2021-2023	
	201	9 Depr.					C	Capex 3 Year		2023 Cap		Growth in Net	
	and	Amort.		20	19 Net PPE		To	otal 2021-2023		Ex/2019 Depr.		PPE as a % of	
	(mi	llions\$)	Rank	(1	millions\$)	Rank		(millions\$)	Rank	and Amort.	Rank	2019 PPE	Rank
Eversource Energy	\$	885	9	\$	27,635	9	\$	10,610	7	3.99	1	28.78%	3
Edison International	\$	1,803	6	\$	44,978	5	\$	16,200	5	3.00	2	23.99%	5
American Electric Power Company, Inc.*	\$	2,515	4	\$	61,096	4	\$	22,380	3	2.97	3	24.28%	4
NextEra Energy, Inc.	\$	4,216	1	\$	82,571	1	\$	36,815	1	2.91	4	29.27%	1
PNM Resources, Inc.	\$	301	13	\$	5,610	13	\$	2,543	12	2.82	5	29.23%	2
PG&E Corporation	\$	3,234	3	\$	63,921	3	\$	24,600	2	2.54	6	23.31%	6
FirstEnergy Corp.	\$	1,220	8	\$	31,881	8	\$	9,245	8	2.53	7	17.52%	7
PPL Corporation	\$	1,280	7	\$	36,578	6	\$	8,985	9	2.34	8	14.07%	13
Pinnacle West Capital Corporation	\$	664	11	\$	14,378	11	\$	4,500	11	2.26	9	17.44%	8
Otter Tail Corporation*	\$	78	17	\$	1,775	17	\$	521	17	2.22	10	16.15%	9
OGE Energy Corp.*	\$	355	12	\$	8,965	12	\$	2,345	13	2.20	11	14.28%	12
Evergy Inc.	\$	862	10	\$	19,451	10	\$	5,612	10	2.17	12	15.56%	10
IDACORP, Inc.	\$	174	16	\$	5,309	14	\$	1,053	15	2.02	13	10.01%	15
Exelon Corporation	\$	3,724	2	\$	81,538	2	\$	21,224	4	1.90	14	12.33%	14
Entergy Corporation*	\$	2,182	5	\$	35,516	7	\$	11,645	6	1.78	15	14.35%	11
ALLETE, Inc.*	\$	201	15	\$	4,406	16	\$	1,020	16	1.69	16	9.49%	16
Hawaiian Electric Industries, Inc.	\$	278	14	\$	4,531	15	\$	1,175	14	1.41	17	7.52%	17
Avg. Ex Evergy	\$	1,444		\$	31,918		\$	10,929		2.41		18.25%	
Average Regional Peers Ex Evergy	\$	1,066		\$	22,352		\$	7,582		2.17		15.71%	

Sources: S&P Global Market Intelligence, FERC Form 1 Data

^{*} Indicates a Regional Peer Holding Company included in KCC Staff's Rate Study

Electric and Multi-Utility H Holding Company	201	ng Comp 9 Net PPE nillions\$)	·	Ca T	ital Expe pex 3 Year otal 2021- 2023 millions\$)	nditur Rank	Average 2021- 2023 Cap Ex/2019 Depr. and Amort.		endix 2 2021-2023 Growth in Net PPE as a % of 2019 PPE	Rank
		.,			.,					
Sempra Energy	\$	37,043	11	\$	19,515	8	4.15	1	39.98%	1
Avangrid, Inc.	\$	25,421	17	\$	11,579	13	4.08	2	34.38%	2
Eversource Energy	\$	27,635	16	\$	10,610	16	3.99	3	28.78%	7
WEC Energy Group Inc.*	\$	23,675	20	\$	10,252	17	3.69	4	31.57%	3
Ameren Corp.*	\$	24,412	19	\$	10,680	15	3.55	5	31.44%	4
Edison International	\$	44,978	8	\$	16,200	9	3.00	6	23.99%	13
American Electric Power Company, Inc.*	\$	61,096	7	\$	22,380	6	2.97	7	24.28%	12
NextEra Energy, Inc.	\$	82,571	3	\$	36,815	1	2.91	8	29.27%	5
DTE Energy Co.	\$	25,100	18	\$	10,888	14	2.87	9	28.28%	9
PNM Resources, Inc.	\$	5,610	28	\$	2,543	26	2.82	10	29.23%	6
MGE Energy, Inc.	\$	1,643	35	\$	585	33	2.72	11	22.54%	15
Black Hills Corp.*	\$	5,508	29	\$	1,709	29	2.72	12	19.64%	19
MDU Resources Group Inc.*	\$	5,032	31	\$	2,092	28	2.72	13	26.31%	11
Dominion Energy Inc.	\$	69,581	5	\$	24,200	4	2.71	14	21.94%	16
CMS Energy Corp.	\$	18,545	23	\$	7,920	22	2.66	15	26.66%	10
Alliant Energy Corporation*	\$	13,543	26	\$	4,525	24	2.66	16	20.85%	17
Xcel Energy Inc.*	\$	41,155	10	\$	13,930	10	2.60	17	20.84%	18
PG&E Corporation	\$	63,921	6	\$	24,600	3	2.54	18	23.31%	14
FirstEnergy Corp.	\$	31,881	15	\$	9,245	19	2.53	19	17.52%	21
CenterPoint Energy Inc.	\$	21,008	21	\$	9,910	18	2.52	20	28.45%	8
Public Service Enterprise Group Inc.	\$	36,126	13	\$	9,185	20	2.45	21	15.06%	27
Consolidated Edison Inc.	\$	44,746	9	\$	12,131	11	2.40	22	15.82%	25
Southern Company	\$	84,880	2	\$	23,700	5	2.37	23	16.15%	24
PPL Corporation	\$	36,578	12	\$	8,985	21	2.34	24	14.07%	30
Duke Energy Corporation	\$	103,785	1	\$	35,338	2	2.28	25	19.09%	20
Pinnacle West Capital Corporation	\$	14,378	25	\$	4,500	25	2.26	26	17.44%	22
Otter Tail Corporation*	\$	1,775	34	\$	521	34	2.22	27	16.15%	23
OGE Energy Corp.*	\$	8,965	27	\$	2,345	27	2.20	28	14.28%	29
Evergy Inc.	\$	19,451	22	\$	5,612	23	2.17	29	15.56%	26
IDACORP, Inc.	\$	5,309	30	\$	1,053	31	2.02	30	10.01%	32
Exelon Corporation	\$	81,538	4	\$	21,224	7	1.90	31	12.33%	31
Entergy Corporation*	\$	35,516	14	\$	11,645	12	1.78	32	14.35%	28
ALLETE, Inc.*	\$	4,406	33	\$	1,020	32	1.69	33	9.49%	33
Hawaiian Electric Industries, Inc.	\$	4,531	32	\$	1,175	30	1.41	34	7.52%	34
Avg. Ex Evergy	\$	33,088		\$	11,606		2.66		21.55%	

\$

31,263

10,872

2.58

20.67%

Average Regional Peer Ex Evergy \$ Source: S&P Global Market Inteligence, FERC Form 1 Data.

^{*} Indicates a Regional Peer Holding Company included in KCC Staff's Rate Study

Appendix 3, the Financial Model provided in response to KEPCo Data Request No. 01-04, is Confidential in its Entirety

Docket No. 21-EKME-088-GIE Attached Public Data Request Responses

Evergy Kansas Metro Case Name: 2021 Investigation of Evergy STP Case Number: 21-EKME-088-GIE

Response to Nickel David Interrogatories - CURB_20201208 Date of Response: 12/16/2020

Question: CURB-3-6

Please a) state when the Company first determined that its grid was likely to face degradation over the next few years, b) identify the degradation of service that is expected in the absence of the STP, and c) identify the improvement expected if the STP is implemented.

Response:

- a) Evergy has been concerned about degradation of the system for many years. See testimony provided by Bruce Akin and Jeff Cummings on behalf of the Company in 15-WSEE-115-RTS.
- b) Degradation of the system would show up in the company's reliability indices. A projected degradation to SAIFI was shown on page 8 of Company witness Jeff Cummings testimony in the docket 15-WSEE-115-RTS.
- c) The same chart on page 8 shows projected improvement to Kansas Central SAIFI should the program proposed in Akin and Cummings testimony have been approved. That program estimated needed incremental capital investment on the Distribution system of almost \$900 million over 15 years. The Sustainability Transformation Plan invests an incremental \$100 million in Kansas Central Distribution through 2024. While Kansas Central has continued to focus resources on asset replacement in recent years, the level of Distribution investment is not expected to materially improve reliability.

Attachment: QCURB-3-6 Verification.pdf

Evergy KS Metro

The response to <u>CUR</u>	<u>B</u> Data Re	equest#	CURB-3-0	, submitted by
KCP&L, is covered by t	his Verification of Re	esponse:		
I have read the foreg answer(s) to be true misrepresentations or o disclose to the Commis accuracy or completenes	e, accurate, full assemissions to the best sion Staff any matter	nd compl t of my k r subseque	ete, and containowledge and be notly discovered w	n no material elief; and I will which affects the
	Signed:		Bud Lut	
	Title:	Director,	Regulatory Affai	rs
	Date:	Decembe	r 16, 2020	

Evergy Kansas Metro Case Name: 2021 Investigation of Evergy STP

Case Number: 21-EKME-088-GIE

Response to Haynos Leo Interrogatories - KCC_20201209 Date of Response: 1/5/2021

Question:6

RE: Grid Modernization Workshop 12 3 20 Page 12 grid management and data analytics

- A. Please provide examples and studies that document the results of proactive grid management that have been achieved at other utilities.
- B. Please provide examples of data driven decisions that are expected to be achieved by real time grid management and data analytics.
- C. What is the expected percentage improvement in reliability that can be expected from real time grid management and data analytics

Response:

A. Please find a list of links to Department of Energy reports and announcement supporting Grid Modernization efforts. Also, please find links to other utility Grid Modernization plans. Neither list is meant to be exhaustive.

Department of Energy Grid Modernization Information

https://www.energy.gov/sites/prod/files/2016/01/f28/Grid%20Modernization%20Multi-Year%20Program%20Plan.pdf

https://www.energy.gov/articles/doe-announces-40-million-grid-modernization-initiative

https://www.energy.gov/sites/prod/files/2017/06/f34/EAC%20-%20New%20Technologies%20Require%20a%20Modern%20Grid%2C%20Report%20on%20th e%20US%20DOE%20GMI%20-... 0.pdf

https://www.energy.gov/oe/articles/department-energy-s-electricity-advisory-committee-establishes-grid-resilience-national

Indianapolis Power and Light 2020 https://www.revamp.iplpower.com/

Puget Sound

https://www.pse.com/pages/grid-modernization

Exelon ComEd

https://www.comed.com/SmartEnergy/SmartMeterSmartGrid/Pages/SmartGrid.aspx

Exelon Pepco

https://www.pepco.com/SmartEnergy/ReliabilityImprovements/Pages/CapitalGridProject.aspx

Georgia Power

https://www.georgiapower.com/company/news-center/2019-articles/georgia-power-investing-billions-in-georgias-energy-future.html

Ameren

https://www.ameren.com/Missouri/Company/Smart-Energy-Plan?wt.mc_id=SEP-Homepage-AMO

B. Data driven decisions will take many forms in the future. The examples provided below are not meant to be exhaustive of the subject.

Real Time Grid Management:

- ➤ Voltage management schemes, like Volt Var Optimization (VVO), require real time grid awareness to ensure that voltages flowing throughout the grid are maintained at acceptable levels while executing peak demand reduction and energy efficiency schemes.
- ➤ Closed loop switching, like Fault Location Isolation Supply & Restoration (FLISR) i.e. self-healing grid, requires real time grid awareness. This functionality allows a fault on the grid to be auto isolated using smart devices, restoring the majority of customers in seconds.
- Fault Location Analysis (FLA) requires real time grid data management and analytics to properly identify locations with the highest probability of an incident following a fault event.
- Managing bi-directional power flows from distributed generation (DG) requires real time configuration of the grid. Changes in grid configuration, capacity and the cyclic nature of distributed generation through a given period of the day are additional factors in real time grid awareness.

Data Analytics:

- Asset condition / failure history to better inform replacement decisions.
- ➤ Valuing vegetation risk on the grid. By providing better more granular risk scoring of distribution segments, trim practices can be better targeted to address while maintaining cost efficiency overall on the system.
- ➤ Capture AMI meter data to predict distribution transformers failures prior to occurrence. This same use case can then be applied to line fuses and customer service lines.
- > Outage risk mitigation analytics uses many disparate variables (i.e., weather, soil, etc) to study historical outages. The insights will better allow Evergy to target investment to have the greatest reliability impacts for customers.

C. For comparison, the EDGR program first presented to the KCC in 15-WSEE-115-RTS with needed incremental capital investment purely for the Kansas Central Distribution system of almost \$900 million over 15 years. The Sustainability Transformation Plan invests an incremental \$100 million in Kansas Central Distribution through 2024. Of this, only a relatively small portion is related to real-time grid management and data analytics directly. As a result, there is not expected to be a material improvement in reliability through this investment for KS Central or the corresponding investment in KS Metro. As discussed during the Grid Mod workshop, this investment will help to avoid future reliability degradation and deploy new capabilities in the field which will promote future resiliency and the integration of distributed energy resources, for example.

Attachment: Q6 Verification.pdf

Evergy KS Metro

The response to _	KCC	Data Request#	6	, submitted by
Evergy, is covered	d by this Verif	ication of Response:		
answer(s) to be misrepresentations disclose to the Co	e true, accu s or omission ommission Sta	rate, full and com as to the best of my	plete, and knowledge uently disco	ver(s) thereto and find contain no material and belief; and I will overed which affects the quest(s).
		Signed:		
		Title: Directo	r, Regulato	ry Affairs
		Date:January	5, 2021	·

Evergy Kansas Metro Case Name: 2021 Investigation of Evergy STP Case Number: 21-EKME-088-GIE

Response to Haynos Leo Interrogatories - KCC_20201209 Date of Response: 1/5/2021

Question:9

RE: Grid Modernization Workshop 12_3_20 Page 15 Disciplined planning process: solutions identified

Please provide any algorithms developed for the STP that were used to identify and prioritize distribution investments.

Response:

No algorithms were developed specifically for the STP. Algorithms have been used in the identification and prioritization of distribution investments by both companies since before the merger and these are continually refined. The current status of these processes is outlined below:

Specific Projects: Projects which are not required for new customers, regulatory, safety, or other reasons are scored based on four qualitative and two financial factors which each have different weightings in the overall score:

- Customer Reliability (23%): Within Customer Reliability, there are four criteria which are assessed and they each have a different weighting as well
 - o Asset Criticality, Health and Risk (2x)
 - This is assessed in different ways for Evergy's different operating companies based on the availability of data and the progress of consolidating systems
 - Evergy Kansas Central: Utilizes a separate algorithm which pulls data from many systems to calculate a score for individual assets and then engineers make an assessment of the % to which that asset will be impacted by a project (0-100%) which is factored into the final score (this is the general approach we are moving to as data and systems allow). The algorithm's health component is based upon a circuit or substations contribution to SAIDI; health scores for key assets like substation transformers, breakers, batteries, and protection systems; and historical work order costs. The algorithm's criticality component is based upon customers impacted; loading information; maintainability; and potential hazards. The risk score is the product of the health and criticality scores.

- Evergy Kansas Metro: Engineers answer a series of questions to assess the criticality, health, and risk of the asset(s) impacted by a project (these questions also have different weightings):
 - o 2x: What level of customer reliability (# of outages & size of outage in MW) does this project mitigate?
 - Is the asset age known and to what extent does it exceed its useful life?
 - Are there any known issues with this asset's design? (e.g., poor layout for maintenance, non-standard equipment)
- Power Quality Impacts: Does this project address one or multiple power quality issues?
- Potential Overload (5x): What level of future overload risk does this project mitigate?
- Ocontingency Availability: Are there currently n-1 contingency options available to pick up load for this asset?
- Growth & Technology (13%)
 - o Does this project support an ongoing strategic initiative?
 - o Does this project enable Evergy to implement a new technology?
- Public Image (11%):
 - o 2x: Benefits for Tier 1 or critical customers
 - o Mitigate risk of future environmental event (note that projects to address known environmental issues are required and not covered by this scoring system)
 - o Impact of the project on risk of negative press
- Employee Benefit (8%)
 - What impact does this project have on reducing future safety risk (note that projects to address known safety issues are required and not covered by this scoring system)
 - What impact does this project have on worker productivity / efficiency?
- Financial factors NPV Revenue Requirement (23%) and NPV Net Income (22%)
 - O These two factors are still being refined, but generally they account for the revenue requirement impact of a project and the net income impact (CapEx only)
 - o Because of the relationship between NPVRR and NPVNI, these scores generally offset for distribution projects and do not noticeably impact overall scores

These scores and the answers to the questions outlined here are used in reviewing project lists and were used in prioritizing specific projects within the STP.

Programs: Asset algorithms, that existed prior to the STP, are continuing to be used and continually refined to calculate risk scores for key assets types.

- For substation transformers the risk score is primarily based on dissolved gas test results and trends over multiple test results. Specific gases used to calculate asset health are acetylene, methane, hydrogen, and the carbon dioxide to carbon monoxide ratio. Interfacial tension of the oil is also used in the calculation.
- For substation breakers the risk score is based upon historical maintenance costs, equipment age, manufacturer models that have been designated as poor performers, and breaker mechanism type.

- For the distribution system, Evergy piloted a prioritization system in the Missouri jurisdiction in 2020 to better identify grid modernization opportunities encouraged through Missouri Senate Bill 564. The pilot focused on distribution laterals due to their large impact on reliability indices. That pilot is currently being expanded to cover the entire Evergy territory and most distribution asset classes. The system provides risk scores which is the product of the likelihood of failure for poles and conductor and the consequence of failure.
 - The likelihood of failure was assigned for poles and conductor using survivor curves to estimate the percentage of the population in each asset class that will be surviving over time based upon asset age and asset condition information.
 - o The consequence of failure includes:
 - a safety factor for overhead primary that is close to a building;
 - customer factors based on customer outage information and counts of public safety and commercial / industrial customers;
 - an environmental factor for poles with transformers; and
 - a financial factor for incremental repair costs over time.

These scores are used to identify assets at increased risk of failure. The identified assets are evaluated and prioritized for replacement as necessary within the STP.

Attachment: Q9 Verification.pdf

Evergy KS Metro

Docket No. 21-EKME-088-GIE

9

The response to _	KCC	Data Requ	est#	9	, submitted by
Evergy, is covered	d by this Verific	ation of Res	sponse:		
answer(s) to be misrepresentation:	e true, accura s or omissions ommission Staff	te, full a to the bes any matter	nd comple t of my kn r subsequen	ete, and nowledge ntly disco	ver(s) thereto and find contain no material and belief; and I will evered which affects the quest(s).
		Signed:			
		Title: _	Director, l	Regulator	ry Affairs
		Date:	January 5.	2021	





Evergy Kansas Metro Case Name: 2021 Investigation of Evergy STP

Case Number: 21-EKME-088-GIE

Response to Haynos Leo Interrogatories - KCC_20210126 Date of Response: 2/5/2021

Question:26

For the Evergy Kansas Central distribution system, what was the rate of replacement for calendar Year 2019 of:

- A. wood poles
- B. primary conductor, (feet)
- C. residential transformers
- D. URD cable and terminations

Response:

- A. Distribution Wood Poles 0.63% of wood poles were replaced
- B. Primary Conductor 0.31% of the conductor was replaced
- C. Overhead residential transformers 0.85% of the transformers were replaced
- D. URD cable 0.32% of the cable was replaced Termination replacements are not tracked and therefore were not included in this response.

Information provided by: Jennifer Foster

Attachment: Q26 Verification.pdf

Evergy KS Metro

The response to _	KCC I	Oata Request#	26	, submitted by
KCP&L, is cover	ed by this Veri	fication of Response	e:	
elements, include reduction charted forward-looking risks and uncer forward-looking Consequently, su	ding but no ers, revenue elements are tainties that information uch forward-la	ot limited to congeneration plans in intended to be could cause actual comprising the S	apital investmand earnings accurate whe accurate to a function of the Sustainability of the Sustaina	r of forward-looking ent plans, expense estimates. These made but involve liffer materially from Fransformation Plan. bility Transformation
answer(s) to be misrepresentation will disclose to	e true, accur s or omission the Commis	rate, full and co	omplete, and my knowledg atter subsequen	r(s) thereto and find contain no material ge and belief; and I tly discovered which nation Request(s).
		Signed:	Bead Lut	
		Title:Direc	tor, Regulatory	Affairs
		Date: Febr	uary 4 2021	

Evergy Kansas Metro Case Name: 2021 Investigation of Evergy STP

Case Number: 21-EKME-088-GIE

Response to Haynos Leo Interrogatories - KCC_20210126 Date of Response: 2/5/2021

Question:27

For the Evergy Kansas Metro distribution system, what was the rate of replacement for calendar Year 2019 of:

- A. wood poles
- B. primary conductor, (feet)
- C. residential transformers
- D. URD cable and terminations

Response:

- A. Distribution Wood Poles 0.40% of wood poles were replaced
- B. Primary Conductor 0.57% of the conductor was replaced
- C. Overhead residential transformers 0.71% of the transformers were replaced
- D. URD cable 0.56% of the cable was replaced Termination replacements are not tracked and therefore were not included in this response.

Information provided by: Jennifer Foster

Attachment: Q27 Verification.pdf

Evergy KS Metro

The response to _	KCC	Data Request#	27	, submitted by
KCP&L, is cover	ed by this Ve	rification of Respons	se:	
elements, include reduction charted forward-looking risks and uncer forward-looking Consequently, su	ding but rers, revenue elements ar tainties that information uch forward-	not limited to c generation plans re intended to be could cause actua comprising the	apital investm and earnings accurate whe al results to d Sustainability T	r of forward-looking ent plans, expense to estimates. These in made but involve liffer materially from Fransformation Plan. bility Transformation
answer(s) to be misrepresentation will disclose to	e true, accords or omission the Commi	urate, full and co	omplete, and f my knowledg atter subsequen	r(s) thereto and find contain no material ge and belief; and I tly discovered which nation Request(s).
		Signed:	Bead Lut	
		Title: Direc	ctor, Regulatory	Affairs
		Date: Febr	uary 4, 2021	

Evergy Kansas Metro Case Name: 2021 Investigation of Evergy STP

Case Number: 21-EKME-088-GIE

Response to Haynos Leo Interrogatories - KCC_20210126 Date of Response: 2/5/2021

Question:28

- A. Is Evergy Kansas Central able to identify the impact on its distribution SAIDI (normalized and not normalized) that are caused by transmission outages?
- B. If yes to part A, what was the estimated average impact to SAIDI for each year caused by the 69kV and above transmission outages that occurred on the system between 01/01/2017 and 12/31/2019?
- C. If yes to part A, what was the estimated average impact to SAIDI for each year caused by the 35kV transmission outages that occurred on the system between 01/01/2017 and 12/31/2019?

Response:

A. Yes

В.

Year	Normalized	Not Normalized
2017	7.6% or 7.30 minutes	6.2% or 7.77 minutes
2018	13.0% or 12.62 minutes	9.7% or 12.87 minutes
2019	6.4% or 7.09 minutes	5.0% or 8.95 minutes

C.

Year	Normalized	Not Normalized
2017	9.2% or 8.88 minutes	7.8% or 9.78 minutes
2018	4.8% or 4.69 minutes	7.7% or 10.20 minutes
2019	4.9% or 5.44 minutes	4.4% or 7.79 minutes

Attachment: Q28 Verification.pdf

Evergy KS Metro

Docket No. 21-EKME-088-GIE

The response to _	KCC	Data Request#	28	, submitted by
KCP&L, is cover	ed by this Ve	erification of Response	e:	
elements, include reduction charted forward-looking risks and uncer forward-looking Consequently, su	ding but a ers, revenue elements a tainties that information uch forward	not limited to co generation plans re intended to be could cause actua comprising the S	apital investm and earnings accurate when I results to d Sustainability T	r of forward-looking ent plans, expense estimates. These made but involve iffer materially from Fransformation Plan. bility Transformation
answer(s) to be misrepresentation will disclose to	e true, acc s or omissi the Comm	curate, full and co	omplete, and my knowledg atter subsequen	r(s) thereto and find contain no material ge and belief; and I tly discovered which nation Request(s).
		Signed:	Brad Lit	
			tor, Regulatory	
		Date: Febr	uary 4 2021	

Evergy Kansas Metro Case Name: 2021 Investigation of Evergy STP

Case Number: 21-EKME-088-GIE

Response to Haynos Leo Interrogatories - KCC_20210126 Date of Response: 2/5/2021

Question:29

- A. Is Evergy Kansas Metro able to identify the impact on its distribution SAIDI (normalized and not normalized) that are caused by transmission outages?
- B. If yes to part A, what was the estimated average impact to SAIDI for each year caused by the 69kV and above transmission outages that occurred on the system between 01/01/2017 and 12/31/2019?
- C. If yes to part A, what was the estimated average impact to SAIDI for each year caused by the 35kV transmission outages that occurred on the system between 01/01/2017 and 12/31/2019?

Response:

- A. Yes
- B. No customer outages for voltages higher than 69 kV and above occurred on the system between 01/01/2017 and 12/31/2019

C.

Year	Normalized	Not Normalized
2017	1.5% or 0.98 minutes	6.7% or 32.37 minutes
2018	8.1% or 4.66 minutes	20.2% or 24.48 minutes
2019	8.6% or 5.28 minutes	2.3% or 8.95 minutes

Attachment: 29_Verification.pdf

Evergy KS Metro

The response to _	_KCC	Data Request#	29	, submitted by
KCP&L, is cover	ed by this Ve	rification of Respons	e:	
elements, include reduction charte forward-looking risks and uncer forward-looking Consequently, su	ding but rers, revenue elements artainties that information uch forward-	not limited to co generation plans re intended to be could cause actua comprising the S	apital investm and earnings accurate when al results to d Sustainability T	r of forward-looking ent plans, expense e estimates. These n made but involve iffer materially from Fransformation Plan. bility Transformation
answer(s) to be misrepresentation will disclose to	e true, acc as or omissi the Commi	urate, full and co	omplete, and my knowledg atter subsequen	r(s) thereto and find contain no material ge and belief; and I tly discovered which nation Request(s).
		Signed:		
		Title:Direc	ctor, Regulatory	Affairs
		Date:Febr	uary 4, 2021	

Evergy Kansas Metro Case Name: 2021 Investigation of Evergy STP Case Number: 21-EKME-088-GIE

Response to Grady Justin Interrogatories - KCC_20210128 Date of Response: February 10, 2021

Question:42

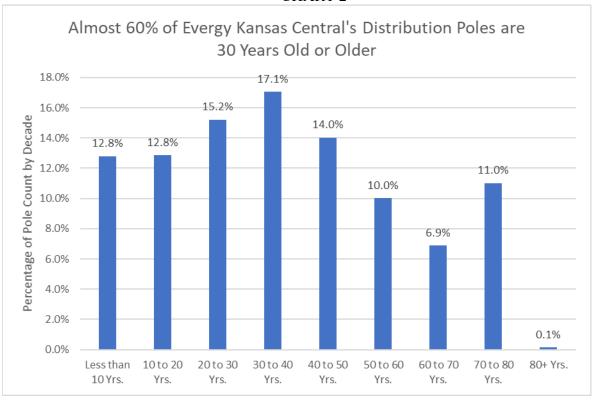
On March 2, 2015, Bruce Akin filed testimony in the 15-WSEE-115-RTS Docket, which contained these Charts on page 15. (Attached). Please update these charts to account for the current age of Evergy Kansas Central's Substation Transformers and Distribution Poles. Additionally, please provide the equivalent chart for Evergy Kansas Metro.

Response:

Evergy Kansas Central

CHART 1 25% 65% of Evergy Kansas Central's Substation Transformers are 30 Years Old or Older 20% 20% 19% Percent of Transformers by Age Group 16% 15% 13% 10% 10% 10% 5% 4% 5% 2% 1% 0% Less than 10 to 20 20 to 30 30 to 40 40 to 50 50 to 60 60 to 70 70 to 80 80 to 90 90+ Yrs. 10 Yrs. Yrs. Yrs. Yrs. Yrs. Yrs. Yrs. Yrs. Yrs.

CHART 2



Evergy Kansas Metro

CHART 1

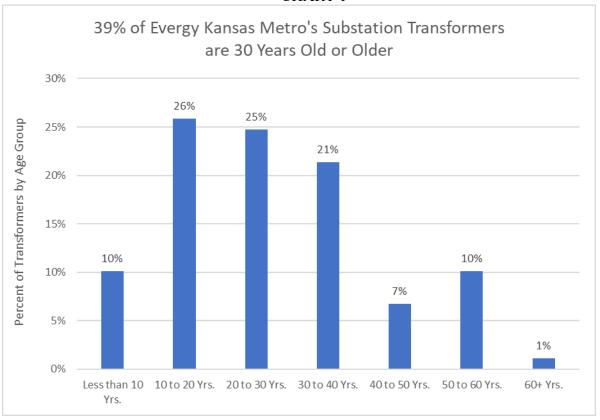
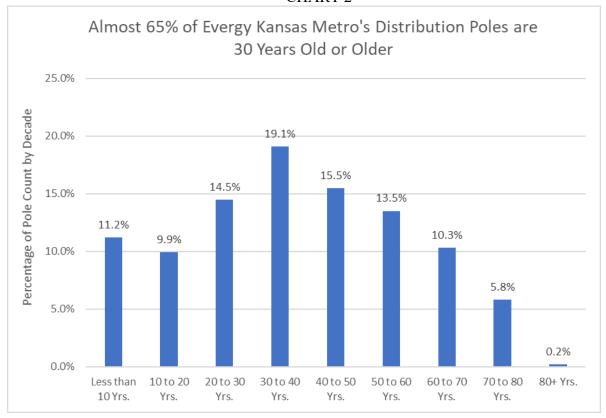


CHART 2



Information Provided By: Jennifer Foster

Attachment: Q42_Verification.pdf

Evergy KS Metro

The response to _	_KCC	Data Request#	42	, submitted by
Evergy, is covere	d by this Ver	ification of Response		
elements, include reduction charted forward-looking risks and uncert forward-looking Consequently, su	ding but ers, revenue elements a tainties that information uch forward	not limited to control of the comprising the control of the contro	apital investm and earnings accurate when al results to d Sustainability T	r of forward-looking ent plans, expense estimates. These n made but involve iffer materially from Transformation Plan. bility Transformation
answer(s) to be misrepresentation will disclose to	e true, acc s or omissi the Comm	curate, full and co	omplete, and my knowledg atter subsequen	r(s) thereto and find contain no material e and belief; and I tly discovered which action Request(s).
		Signed:		
		Title:Direc	ctor, Regulatory	Affairs
		Date:Febr	uary 9, 2021	

Evergy Kansas Metro Case Name: 2021 Investigation of Evergy STP

Case Number: 21-EKME-088-GIE

Response to Haynos Leo Interrogatories - KCC_20210129 Date of Response: February 09, 2021

Question:43

For CY 2019, what is the comparison of Evergy Central and Evergy metro to its peer industry group for reliability metrics SAIDI, SAIFI, CAIDI, CEMI, and CEMMI.

Response:

Evergy Kansas Central

SAIDI: EEI Tier 2 IEEE 3rd Quartile SAIFI: EEI Tier 3 IEEE 3rd Quartile CAIDI: EEI Tier 2 IEEE 2nd Quartile CEMI: EEI Tier 2 IEEE not available

CEMMI: No benchmark available

Evergy Kansas Metro

SAIDI: EEI Tier 1 IEEE 1st Quartile SAIFI: EEI Tier 1 IEEE 1st Quartile CAIDI: EEI Tier 1 IEEE 1st Quartile CEMI: EEI Tier 2 IEEE not available

CEMMI: No benchmark available

Attachment: Q43 Verification.pdf

Evergy KS Metro

The response to _	_KCC	Data Request#	43	, submitted by
Evergy, is covere	d by this Veri	fication of Response	:	
elements, include reduction charted forward-looking risks and uncer forward-looking Consequently, su	ding but ners, revenue elements ar tainties that information uch forward-	ot limited to consisted generation plans be intended to be could cause actual comprising the S	apital investm and earnings accurate when al results to d Sustainability T	r of forward-looking ent plans, expense e estimates. These n made but involve iffer materially from Transformation Plan. bility Transformation
answer(s) to be misrepresentation will disclose to	e true, accu s or omission the Commi	urate, full and co	omplete, and my knowledg atter subsequen	r(s) thereto and find contain no material ge and belief; and I tly discovered which nation Request(s).
		Signed:		
		Title:Direct	ctor, Regulatory	Affairs
		Date:Febr	uary 8, 2021	

Evergy Kansas Metro Case Name: 2021 Investigation of Evergy STP Case Number: 21-EKME-088-GIE

Response to Haynos Leo Interrogatories - KCC_20210210 Date of Response: February 22, 2021

Question:52

RE: Follow up to Data request 43

A. Please provide a definition of the EEI tiers 1, 2, and 3.

B. For SAIDI, SAIFI, and CAIDI, please provide the value of the boundary between the quartiles for each respective metric.

Response:

A: The EEI tiers 1, 2 and 3 are the first three quartiles for respondents to the 2019 EEI Reliability Survey taken from the table titled "2019 Reliability Indices (Excluding Major Events). EEI member companies calculate their reliability statistics using IEEE Standard 1366-2012 as a guide for their submissions to the benchmarking study. SAIFI is calculated in units of interruption annually. CAIDI and SAIDI are calculated in units of minutes of interruption annually. CEMI6 is calculated as a percentage of customers experiencing 6 or more interruptions annually.

B: A screen shot of the 2019 EEI Reliability Survey results is shown in the figure below.

2019 Reliability Indices (Excluding Major Events)

	1st	2nd	3rd	4th
SAIFI	<0.875	0.875 - 1.036	1.056 - 1.322	>1.322
CAIDI	<95.28	95.28 – 110.01	110.47 - 130.80	>130.80
SAIDI	<82.63	82.63 - 113.45	114.56 - 160.55	>160.55
ASAI	>99.9843	99.9843 – 99.9784	99.9782 – 99.9703	<99.9703
MAIFI	<1.228	1.228 - 1.542	1.621 - 2.650	>2.650
3 Yr. Avg. SAIFI*	<0.899	0.899 - 1.040	1.041 - 1.226	>1.226
3 Yr. Avg. SAIDI*	<88.08	88.08 - 116.62	116.73 - 155.25	>155.25
CEMI ₃ **	<9.33	9.33 – 12.48	13.19 – 19.81	>19.81
CEMI ₄ **	<3.39	3.39 - 5.64	5.75 – 10.38	>10.38
CEMI _s **	<1.32	1.32 - 2.51	2.71 - 5.33	>5.33
CEMI ₆ **	<0.54	0.54 - 1.19	1.39 – 2.48	>2.48

^{*} Three-year average for the period 2016-2019

Response provided by: Susan Quinn

Attachment: Q52_Verification.pdf

^{**} Customers experiencing multiple interruptions as % of customers served per IEEE 1366-2012 G

Evergy KS Metro

				, submitted by
Evergy, is covere	d by this Ve	erification of Respons	se:	
elements, include reduction charted forward-looking risks and uncerforward-looking Consequently, su	ding but ers, revent elements tainties the informatio uch forwar	not limited to ue generation plan are intended to bo ut could cause actu n comprising the	capital investme s and earnings e accurate when ual results to dip Sustainability To	of forward-looking nt plans, expense estimates. These made but involve fer materially from ransformation Plan. ility Transformation
answer(s) to be misrepresentation will disclose to	e true, ac s or omis the Com	ecurate, full and or sions to the best of	complete, and c of my knowledge natter subsequentl	(s) thereto and find ontain no material e and belief; and I y discovered which ation Request(s).
		Signed:		
		Title:Dire	ector, Regulatory A	Affairs
		Data: Fal	muory 22, 2021	

STATE OF KANSAS)
) ss
COUNTY OF SHAWNEE)

VERIFICATION

Justin T. Grady, being duly sworn upon his oath deposes and states that he is Chief of Revenue Requirements, Cost of Service and Finance for the Utilities Division of the Kansas Corporation Commission of the State of Kansas, that he has read and is familiar with the foregoing *Staff's Initial Comments*, and attests that the statements contained therein are true and correct to the best of his knowledge, information and belief.

Justin T. Grady

Chief of Revenue Requirements, Cost of Service and Finance

Justin Grady

State Corporation Commission of the

State of Kansas

Subscribed and sworn to before me this day of April, 2021.

Notary Public

My Appointment Expires: 4-28-21

ANN M. MURPHY
My Appointment Expires
April 28, 2021

21-EKME-088-GIE

I, the undersigned, certify that a true and correct copy of the above and foregoing Notice Of Filing Of Staff's Initial Comments was served via electronic service this 16th day of April, 2021, to the following:

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